

THE MONIST

A QUARTERLY MAGAZINE.

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THE MONIST

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THE MONIST.

THE WORLD'S PARLIAMENT OF RELIGIONS.

EVER since the close of the World's Congresses of 1893, which opened on the 15th of May and held their final session on the 28th of October, and which embraced in more than two hundred general divisions of twenty departments nearly all the great interests of enlightened humanity, streams of comment, chiefly on the World's Parliament of Religions as the supreme event of the series, have flowed to Chicago from all parts of the world, showing a world-wide interest in the proceedings and a desire to know more fully the facts in relation to them.

For the most part, those streams of comment have been pure, reflecting the splendors of the skies and the beauties of the fields through which they flowed; but occasionally they have borne the driftwood of ignorance, mistake, and prejudice, and sometimes even the impurities of misrepresentation and unkind epithet. This, however, is only what should have been expected, for it is only in the ideal realm that ideal perfection can be found. Let us therefore be thankful there has been so much of appreciation and praise, and so comparatively little of unkind expression.

That the movement which took the form of organised effort in 1889, and culminated in the actual holding of the World's Congresses of the World's Columbian Exposition in 1893 has steadily increased in breadth and power since the close of the congress season, and that this movement will continue to influence mankind for generations to come, has been evidenced in many ways. Perhaps the most noteworthy event that distinguished the opening of the

present year was the World's Congress Reunion and Celebration of the Parliament of Religions, held in the Chicago Auditorium on the evening of the last New Year Day. Almost spontaneously a great demonstration was arranged and triumphantly executed. The programme was remarkably varied, comprehensive and imposing, and the character and enthusiasm of the audience were worthy of the occasion. It is not the purpose of the present article to give an account of that celebration, which it is hoped will be otherwise adequately presented to the reading public.

Prompted by the events of the past year, and especially by that to which reference has just been made, the Editor of *The Monist* has requested the writer to set forth, as briefly and clearly as possible, the fundamental nature and basis of that part of the great general movement which relates especially to the Parliament of Religions. I have accordingly undertaken to state, in a compact form, the underlying principles and the controlling rules and regulations under which the marvellous success of that memorable convocation was attained.

With remarkable accord, the leaders of progress in all lands have recognised the World's Congresses of 1893, crowned by the Parliament of Religions, as constituting an epoch-making event in the history of human progress, marking the dawn of a new era of brotherhood and peace. But here and there a note of discord has been heard breaking against the harmony of the general anthem of praise. This is not surprising, for differences of opinion on every subject must exist; but it is remarkable that most of the criticisms have come from persons assuming to speak in the name of Christianity. This curious circumstance naturally awakened a desire to know, more explicitly, the nature, scope, and purposes of the Religious Congresses of 1893; and why it is, and how it is, that a great religious assembly, which, for seventeen successive days, was opened with the prayer that Jesus taught to his disciples, the representatives of all the religions of the world reverently joining in its devout recital, has been or can be a subject of censure from persons who claim to be his followers. Evidently there is some mistake in regard to the matter. Let us endeavor to see what it is.

In a certain high and representative sense, the Parliament of Religions was an exemplification of monism in religion. For it showed that with all the differences in the forms of religion, there is, nevertheless, something underlying them all, which constitutes an incorruptible and indestructible bond of brotherhood, which, like a golden cord, binds all the races of men in one grand fraternity of love and service. What that enduring something is, may be found quite explicitly set forth in the Christian Scriptures. The Gospel of St. John declares, among many similar things, that there is a True Light which lighteth every man that cometh into the world; namely, the light of the Word which was in the beginning with God, and which was made flesh and dwelt among men in the form of the same Jesus whose prayer voiced the daily supplications of the Parliament of Religions. (St. John, i, 9.)

And the great apostle Peter, who had fallen into the error of supposing that Christian salvation was for the Jews only, and had been cured of this error by a symbolic instruction, also declares that in truth God is no respecter of persons, but in every nation he that feareth Him and worketh righteousness is accepted of Him. (Acts, ix, 34, 35.)

It is also the clear doctrine of the Church that God hath not left himself without a witness among any people; but that there is an influx from God into the mind of every human being, teaching that there is a God, and that he should be loved and served. Hence, if any one really be a genuine Christian, it would seem impossible for him to do otherwise than ardently desire to come into just such a relation with all other men as the Christians had with the representatives of other faiths during the seventeen days of the Parliament of Religions, and have since continued to enjoy with them through correspondence and otherwise.

It may be well, in this connexion, to mention a few things which the Parliament of Religions was not intended to be. It was not a scheme to form a new religion. It was not a project to put the representatives of any form of faith in any false position. It was not a trap set to catch any unwary visitors to the World's Fair. But, on the contrary, the World's Parliament of Religions was a friendly

conference on the basis of the golden rule of Christ ; a royal feast to which the representatives of every faith were asked to bring the richest fruits and the fairest flowers of their religion. The supreme object of the festival was to end religious strife and persecution ; and to secure to every human being, as far and as rapidly as possible, the sacred right to worship God according to the dictates of his own conscience. To that end, *no participant was asked to surrender any conviction of what he believed to be truth and duty*; nor was any representative of any faith asked to take any part which would compromise him in his relations to his own church. Those who took the active and responsible part in the organisation of the Parliament of Religions had no more fear that any injury might come from it to the Sun of Righteousness than they had that it would work harm to the sun of the firmament.

The original proclamation of the World's Congresses of 1893 embraced, among other great themes to be considered, "the grounds of fraternal union in the language, literature, domestic life, RELIGION, science, art, and civil institutions of different peoples." In organising the Department of Religion, the following definitions and aphorisms were prefixed to the preliminary publication of the department.

"Religion : Real piety in practice, consisting in the performance of all known duties to God and man.—*Law Dictionary*.

No society can be upheld in happiness and honor, without the sentiment of religion.—*Laplace*.

Life and religion are one, or neither is anything.—*George McDonald*.

All religion has relation to life, and the life of religion is to do good.—*Swedenborg*.

All religion is summed up in these two words—Law and Gospel ; and these two words in one word—Love.—*Lyman Abbott*.

Pure religion and undefiled before our God and Father, is to visit the widows and fatherless in their affliction, and keep oneself unspotted from the world.—*James i, 27*.

What doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God?—*Micah* vi, 8.

All things whatsoever ye would that men should do to you, do ye even so to them, for this is the law and the prophets.—*Matthew*, vii, 12."

The general object of the proposed religious congresses we declared in that publication to be :

"To unite all religion against all irreligion ; to make the golden rule the basis of this union ; to present to the world in the religious congresses to be held in connexion with the Columbian Exposition of 1893, the substantial unity of many religions in the good deeds of the religious life ; to provide for a World's Parliament of Religions, in which their common aims and common grounds of union may be set forth, and the marvellous religious progress of the nineteenth century reviewed ; and to facilitate separate and independent congresses of different religious denominations and organisations, under their own officers, in which their business may be transacted, their achievements presented, and their work for the future considered."

The following themes were mentioned as appropriate to indicate the general scope of the department, and more especially to elicit the suggestions of the committees, advisory councils, honorary members and others interested, to be utilised in making the final arrangements for the religious congresses :

- "a. The idea of God, its influence and consolations.
- b. The evidences of the existence of God, especially those which are calculated to meet the agnosticism of the present time.
- c. That evils of life should be shunned as sins against God.
- d. That the moral law should be obeyed as necessary to human happiness, and because such is the will of the Creator.
- e. That the influence of religion on the family life is to make it virtuous and pure.
- f. That the influence of religion on the community is to establish justice, promote harmony, and increase the general welfare.
- g. That the influence of religion on the State is to repress evil,

vice, and disorder in all their forms, and to promote the safety and happiness of the people.

- h.* That conscience is not a safe guide, unless enlightened by religion and guided by sound reason.
- i.* That of a truth, God is no respecter of persons, but in every nation he that feareth Him, and worketh righteousness is accepted of Him.
- j.* That throughout the world the substantial fruits of sincere religion include the following: Improved personal character; better business methods; nearly all the works of charity; improved domestic order; greater public peace, etc.
- k.* That the weekly rest-day is indispensable to religious liberty, and to the general welfare of the people.
- l.* The triumphs of religion in all ages.
- m.* The present state of religion throughout the world, including its marvellous advances during the present century.
- n.* The statistics of churches as an answer to the alleged prevalence of infidelity.
- o.* The dominance of religion in the higher institutions of learning.
- p.* The actual harmony of science and religion; and the origin and nature of the alleged conflict between them.
- q.* The influence of religious missions on the commerce of the world.
- r.* The influence of religion on literature and art.
- s.* The coming unity of mankind in the service of God and of man.
- t.* That there is an influx from God into the mind of every man, teaching that there is a God and that he should be worshipped and obeyed; and that as the light of the sun is differently received by different objects, so the light of divine revelation is differently received by different minds, and hence arise varieties in the forms of religion.
- u.* That those who believe in these things may work together for the welfare of mankind, notwithstanding they may differ in the opinions they hold respecting God, His revelation and manifestation; and that such fraternity does not require the surrender of

the points of difference. The Christian believing in the supreme divinity of Christ, may so unite with the Jew who devoutly believes in the Jehovah of Israel; the Quaker with the High Church Episcopalian; the Catholic with the Methodist; the Baptist with the Unitarian, etc."

The immense task of organising the Parliament of Religions was entrusted to a general committee of which the Rev. Dr. John Henry Barrows was appointed the Chairman. This committee consisted of sixteen persons, representing sixteen forms of religious faith. In selecting them, great care was taken to secure as representatives of different religious bodies, persons of strong and vigorous convictions, who would be acknowledged by their respective organisations as worthy to speak in their behalf. The committee, as originally constituted, consisted of the following persons:

Rev. John Henry Barrows, D. D., Chairman (Presbyterian); Rev. Prof. David Swing, Vice Chairman (Independent); Archbishop P. A. Feehan (Catholic); Rt. Rev. Bishop William E. McLaren, D.D., D.C.L. (Protestant Episcopal); Rev. Dr. F. A. Noble (Congregationalist); Rev. Dr. William M. Lawrence (Baptist); Rev. Dr. F. M. Bristol (Methodist); Rabbi E. G. Hirsch (Jew); Rev. Dr. A. J. Canfield (Universalist); Rev. Jenkin Lloyd Jones (Unitarian); Rt. Rev. Bishop C. E. Cheney (Reformed Episcopal); Rev. M. C. Ranseen (Swedish Lutheran); Rev. John Z. Torgersen (Norwegian Lutheran); Rev. J. Berger (German Methodist); Mr. J. W. Plummer (Quaker); Rev. L. P. Mercer (Swedenborgian).

The first public act of this committee was the issuance of the following Preliminary Address, which, being very brief, is here reproduced on account of its historic importance.

"The Columbian Exposition of 1893, besides a comprehensive
"and brilliant display of the achievements of men in material progress, is to be made still more notable by conventions of the leaders of human thought. The Auxiliary having charge of these
"congresses is an organisation which has received Congressional
"recognition and approval, and is authorised and supported by the
"World's Fair authorities, who earnestly believe that these conventions will elevate the character and increase the utility of the

"Exposition. Audience rooms, sufficient in number and capacity for every kind of assembly, will be provided by the Directory of the Fair.

"Since the World's Fair stands for the world's progress in civilisation, it is important that the creative and regulative power of religion, as a prime factor and force in human development, should receive due prominence. The committee having charge of the religious congresses seek the co-operation of the representatives of all faiths. Now that the nations are being brought into closer and friendlier relations with each other, the time is apparently ripe for new manifestations and developments of religious fraternity. Humanity, though sundered by oceans and languages, and widely differing forms of religion, is yet one in need, if not altogether in hope. The literatures and the results of the great historic faiths are more and more studied in the spirit which would employ only the agencies of light and love. It is not the purpose of these conventions to create the temper of indifferentism in regard to the important peculiarities distinguishing the religions of the world, but rather to bring together, in frank and friendly conference, the most eminent men of different faiths, strong in their personal convictions, who will strive to see and show what are the supreme truths, and what light religion has to throw upon the great problems of our age. Ample provision will be made for special congresses of all churches, denominations, or religious organisations, which may desire to avail themselves of the opportunities presented by this auxiliary. The central religious congress will, however, rest on a wider basis. We are confident that it may be made illustrious as a representative gathering of men united for the attainment of great moral ends.

"Believing that God is, and that He has not left Himself without witness; believing that the influence of religion tends to advance the general welfare, and is the most vital force in the social order of every people; and convinced that of a truth God is no respecter of persons, but that in every nation he that feareth Him and worketh righteousness is accepted of Him, we affectionately invite the representative of all faiths to aid us in presenting

“to the world, at the Exposition of 1893, the religious harmonies
“and unities of humanity, and also in showing forth the moral and
“spiritual agencies which are at the root of human progress. It is
“proposed to consider the foundations of religious faith ; to review
“the triumphs of religion in all ages ; to set forth the present state
“of religion among the nations and its influence over literature, art,
“commerce, government, and the family life ; to indicate its power
“in promoting temperance and social purity, and its harmony with
“true science ; to show its dominance in the higher institutions of
“learning ; to make prominent the value of the weekly rest-day on
“religious and other grounds ; and to contribute to those forces
“which shall bring about the unity of the race in the worship of
“God and the service of man. Let representatives from every part
“of the globe be interrogated and bidden to declare what they have
“to offer or suggest for the world’s betterment ; what light re-
“ligion has to throw upon the labor problem ; the educational
“questions, and the perplexing social conditions of our time ; and
“what illumination it can give to the subjects of vital interest that
“will come before the other congresses of 1893. It is proposed to
“have these and similar themes discussed by great masters of hu-
“man thought from many lands, and we invite suggestions and
“assurances of co-operation from those persons and religious bodies
“to whom this address is particularly sent.

“From the many favorable responses already received from
“leading theologians, statesmen, jurists, historians, scientists,
“authors, and scholars, it is expected that the congresses of 1893
“will mark an important epoch in the history of the human mind.”

There are many reasons for the belief that there is now a wide-spread desire for a more definite and comprehensive knowledge of the exact manner in which the Parliament of Religions was planned and carried into effect, than has hitherto been accessible. Prompted by this belief, the following additional particulars are given, and the final statement of the objects of the Parliament, as settled after a voluminous correspondence, is therefore here reproduced exactly as it was sent to those invited to take part in the convocation.

THE OBJECTS OF THE PARLIAMENT.

1. To bring together in conference, for the first time in history, the leading representatives of the great historic religions of the world.
2. To show to man, in the most impressive way, what and how many important truths the various religions hold and teach in common.
3. To promote and deepen the spirit of human brotherhood among religious men of diverse faiths, through friendly converse and mutual good understanding, while not seeking to foster the temper of indifferentism, and not striving to achieve any formal and outward unity.
4. To set forth, by those most competent to speak, what are deemed the important distinctive truths held and taught by each religion, and by the various chief branches of Christendom.
5. To indicate the impregnable foundations of theism, and the reasons for man's faith in immortality, and thus to unite and strengthen the forces which are adverse to a materialistic philosophy of the universe.
6. To secure from leading scholars, representing the Brahman, Buddhist, Confucian, Parsee, Mohammedan, Jewish, and other faiths, and from representatives of the various churches of Christendom, full and accurate statements of the spiritual and other effects of the religions which they hold upon the literature, art, commerce, government, domestic and social life of the peoples among whom these faiths have prevailed.
7. To inquire what light each religion has afforded, or may afford, to the other religions of the world.
8. To set forth, for permanent record to be published to the world, an accurate and authoritative account of the present condition and outlook of religion among the leading nations of the earth.
9. To discover, from competent men, what light religion has thrown on the great problems of the present age, especially the

important questions connected with temperance, labor, education, wealth, and poverty.

10. To bring the nations of the earth into a more friendly fellowship, in the hope of securing permanent international peace."

In connexion with these objects certain specific rules and regulations were promulgated for the conduct of the proposed conference, the most important of which are as follows :

- "1. Those taking part in the Parliament are to conform to the limitations and directions of the general committee on Religious Congresses of the World's Congress Auxiliary, and they are carefully to observe the spirit and principles set forth in the preliminary address of this committee.
2. The speakers accepting the invitation of the general committee, will state their own beliefs and the reasons for them with the greatest frankness, without, however, employing unfriendly criticism of other faiths.
3. The Parliament is to be made a grand international assembly for mutual conference, fellowship, and information, and not for controversy, for worship, for the counting of votes, or for the passing of resolutions.
4. The proceedings of the Parliament will be conducted in the English language.
5. Preceding the meetings of the Parliament will be daily morning conferences, purely religious and devotional, under suitable leaders, thus enabling those naturally affiliated to worship together.
6. The evening meetings will be devoted partly to the practical problems of the age, partly to the meetings of non-Christian religionists who may desire to confer together, and partly to the sessions of the Parliament of Christendom, at which all those who recognise the moral and spiritual leadership of Jesus will discuss the relationship of all believers in Him to one another and to the needs of the world."

These special provisions were supplemented and reinforced by the general rules and regulations of the World's Congress Auxiliary, which were sent through the Department of State, and otherwise, to

all parts of the world. From these rules and regulations the following extracts are here given to show the actual working machinery under which even congresses on labor and religion were conducted with such order, decorum, peace, and success, as were never surpassed, and probably never equalled.

THEMES, SPEAKERS, AND LIMITATIONS.

On these subjects we said :

“To make the proceedings of the various congresses as worthy
“of a world-wide publication as possible ; to reduce as far as practicable the expense of such publication ; to prevent repetitions of
“matter and duplicate assignments of speakers ; to secure such a
“strength and force of treatment as will ensure the widest reading ;
“to guard against encroachments by one speaker on the time which
“justly belongs to another ; and to secure a just representation of
“all the participating countries, the themes to be presented in the
“various congresses will be selected with a view to make a complete and orderly treatment of the general subject embraced in
“the department ; the programmes of the different departments
“and divisions will be carefully compared, and all papers and remarks will be strictly limited to an allotted time. The object will
“be to state results and present existing problems and suggested
“remedies, and for this purpose lengthy papers are neither necessary nor desirable.”

DISCUSSION OF THE SUBJECTS PRESENTED.

“Unprepared discussion or miscellaneous debate would obviously be inconsistent with a plan of which the chief object is to
“procure the maturest thought of the world on all the great questions of the age, in a form best adapted to universal publication.
“The time at disposal after the delivery of a discourse will, therefore, be given to the most eminent persons present, who will speak
“on the call of the presiding officer, and to whom such previous notice as may be practicable will be given. The summaries of progress to be presented, and the problems of the age to be stated in
“the World's Congresses of 1893, will not be submitted to the vote

"of those who may happen to be present, but will be offered for
"subsequent deliberate examination by the enlightened minds of
"all countries; for unrestricted discussion in the forum, the pulpit,
"and the public press; and finally for the impartial judgment of
"that exalted public opinion which expresses the consensus of such
"minds. With this end in view, remarks of leaders, in elucidation
"of a subject, will take the place of ordinary debate. Appropriate
"volunteer papers of special merit will be received by the commit-
"tees, and given such place in the proceedings as the circumstances
"may allow.

"The object of the congresses is not to attempt the impossi-
"bility of settling anything by debate during the Exposition season,
"but to elicit from the leaders of progress in all countries, convened
"in fraternal assembly, the wisest and best thought of the age on
"the living questions of our time, and the means by which further
"progress may be made.

"Controversy is excluded from the World's Congresses of 1893.
"Advocates will present their own views, not attack the views of
"others."

These rules are given thus explicitly because any extension of
the work, to be successful, should be carried forward under sub-
stantially the same regulations. By far, the most important of all
these rules and regulations was that which excluded controversy and
prohibited strife. Each representative was asked to present the
very best things he could offer for those in whose behalf he spoke,
and was admonished that nothing was desired from him in the way
of attack on any other person, system, or creed. There is no more
malignant enemy of human progress; there is no worse obstacle to
the peace and prosperity of the world, than that vindictive spirit
which finds delight in assailing others instead of presenting some-
thing meritorious of its own. The rigorous exclusion of this spirit
from the Parliament of Religions made its success possible. As
has often been stated, the violations of this wholesome rule were
so few that in the language of one of the Orientals, the few notes
of discord heard only served to make the general harmony sweeter.
We asked the Parsee to refrain from charging the religion of Jesus

with the tortures of the Inquisition ; the Universalist from taunting the Calvinist with the dogma of infant damnation ; and the Quaker from assaulting the Episcopalian for what the former might deem an excess of rites and ceremonies. And we also separated most distinctly from the faith of every religion, any pernicious practices which had grown up through the declining centuries and claimed protection under its name.

At the opening of the first session of the Parliament of Religions on September 11, 1893, it was officially declared in the President's address that :

"In this Congress the word 'religion' means the love and worship of God and the love and service of man. We believe the Scripture that of a truth God is no respecter of persons, but that in every nation he that feareth God and worketh righteousness is accepted of Him. We come together in mutual confidence and respect, without the least surrender or compromise of anything which we respectively believe to be truth or duty, and with the hope that mutual acquaintance and a free and sincere interchange of views on the great questions of eternal life and human conduct will be mutually beneficial.

"It was also declared that while the members of this Congress meet, as men, on a common ground of perfect equality, the ecclesiastical rank of each, in his own church, is at the same time gladly recognised and respected, as the just acknowledgment of his services and attainments. But no attempt is here made to treat all religions as of equal merit. Any such idea is expressly disclaimed. In this Congress, each system of religion stands by itself in its own perfect integrity, uncompromised, in any degree, by its relation to any other. In the language of the preliminary publication of the department of religion, we seek in this Congress to unite all religion against all irreligion ; to make the Golden Rule the basis of this union ; and to present to the world the substantial unity of many religions in the good deeds of the righteous life. Without controversy, or any attempt to pronounce judgment upon any matter of faith or worship or religious opinion, we seek a better knowledge of the religious condition of all mankind, with

"an earnest desire to be useful to each other, and to all who love truth and righteousness."

Attention was also called to the fact that "the religious faiths of the world have most seriously misunderstood and misjudged each other, from the use of words in meanings radically different from those which they were intended to bear, and from a disregard of the distinctions between appearances and facts ; between signs and symbols and the things signified and represented."

As we said in the opening address to the Parliament: "The programme for the religious congresses of 1893, constitutes what may, with perfect propriety, be designated as one of the most remarkable publications of the century. The programme of this general Parliament of Religions directly represents England, Scotland, Sweden, Switzerland, France, Germany, Turkey, Greece, Egypt, Syria, India, Japan, China, Ceylon, New Zealand, Brazil, Canada, and the American States, and indirectly includes many other countries. This remarkable programme presents, among other great themes to be considered in this Congress, Theism, Judaism, Mohammedanism, Hinduism, Buddhism, Taoism, Confucianism, Shintoism, Zoroastrianism, Catholicism, the Greek Church, Protestantism in many forms, and also refers to the nature and influence of other religious systems."

This programme also announces for presentation the great subjects of "revelation, immortality, the incarnation of God, the universal elements in religion, the ethical unity of different religious systems, the relations of religion to morals, marriage, education, science, philosophy, evolution, music, labor, government, peace, war, and many other themes of absorbing interest."

How magnificently this great programme was executed ; with what awe inspiring scenes it was attended, cannot be told within the compass of any magazine article. The sublime events of the seventeen days which embraced the work of the Parliament, are set forth in Dr. Barrows's admirable history of the great convocation, and in numerous other publications in which different writers have endeavored to reproduce the occurrences of September, 1893. Suffice it here to say that the anticipations, both of those who had or-

ganised the work, and of those who participated in its execution, were far more than realised. Looking back upon the Parliament after this lapse of time, it still seems almost incredible that such wonderful harmony should have been secured, with such a vigorous, thorough, and far-reaching treatment of the great themes set down for consideration.

Only the briefest reference can be made in this paper to the judgment pronounced by many illustrious leaders on the Parliament of Religions and its work. A volume would not suffice to contain them all. The few extracts given below are chosen rather from orthodox than from liberal sources.

The Independent, a leading organ of Christian thought, says of those who took part in the Parliament of Religions, that they constitute "the most remarkable group of leaders, thinkers, and representative persons who could possibly be brought forward to make an exposition of every possible phase of anything now in the world which is fit to be called rational religion, in any sense. "It was one of the boldest steps ever taken in the religious history of this world, when a few Christian believers conceived the plan of thus bringing together representatives of all the religions of the globe, and giving the globe an opportunity to hear what they had to say for themselves in comparison with each other, and in comparison with Christianity. It was a noble act of faith and showed a Christian confidence which was more than justified in the result, as the history of the Parliament before us shows."

Emilo Castelar, the Spanish Republican Catholic orator and statesman, says: "If the reports of the Congress were not verified by so many American and European journals which contain exact minutes of its sessions, it would seem to us merely the imagining of some poet's fancy, bent on bringing before our vision the year three thousand, or of some theorising philosopher confident of the realisation of his humanitarian Utopias and optimistic hopes. The logical deduction from all that happened on that notable occasion is that all the religions there assembled found a common ground in Christianity; all that were posterior to it followed in its footsteps, and all that were anterior to it prepared the way for it,

"whether they would or no. How clearly it appears in such a re-union of the churches that Christianity is at once a revealed and a natural religion. Our religion is a great reservoir which has received the current of four great tributaries—the Books of the Vedas, of the Zend-Avesta, of the Synagogue, and of Greek learning; by reason of which it has a synthetic and universal character, which makes it a final and perennial religion for all mankind."

Rev. Dr. George Dana Boardman, the distinguished Baptist preacher and theologian, says: "The World's Congresses were the crown of the Exposition. The Parliament of Religions was the diamond in the crown. There the intellectuality and there the spirituality culminated. The Parliament of Religions! It was seventeen days in session; there were three sessions each day; one hundred and seventy papers were read. These sessions were thronged, the total attendance being estimated at about one hundred and fifty thousand. Glorious as was Jackson Park, with all its manifold and magnificent tokens of human art and industry and science, the Parliament of Religions was, to the thoughtful, more attractive even than Jackson Park.

"The spirit of the Parliament was not one of curiosity, or exhibition, or seizure of opportunity to express loose views. That spirit was the spirit of a serious, solemn anxiety. Earnest men and women were there. Accordingly the Parliament was marked by courage. I never heard braver men speak. At the same time there was a beautiful spirit of courtesy. We listened to each other with profound respect, as becomes men made in the image of God, who are to meet each other at the judgment-seat of Jesus Christ."

Rev. Dr. F. A. Noble, orthodox Congregationalist, says, in *The Advance*, one of the leading organs of that church: "The Parliament of Religions was inevitable. In one form or another, sooner or later, it was sure to come. With the interest which has been taken in the study of comparative religions for the last quarter of a century, and which is deepening every day, and with the increasing facilities for intercourse between all the ends of the earth, and above all, under the impulse given to the subject by

"the aggressive activity of modern missionaries, it was simply a matter of course that the adherents of the different faiths of the world should somewhere, sometime, come together, and take each other by the hand, and look each other in the face, and talk over the grounds of their beliefs, and compare spirit and aims, and see which by the test of fruits is the most worthy of universal acceptance."

Rev. Dr. George Washburn, President of Robert College, Constantinople, Turkey, thinks it "a strange and unaccountable misconception of the Parliament to suppose that the Master of Christianity was wounded there. The religious brotherhood which was recognised at Chicago was the same brotherhood which St. Paul recognised at Athens, the same which every missionary must recognise before he can gain a hearing with those who have a faith of their own. No missionary ever made a convert by avoiding him, refusing to listen to him, or cursing his religion. If I wish to reveal Christ to a man, I must not only treat him as a brother, but feel that he is a brother, and find some common ground of sympathy. This was what was attempted on a grand scale at Chicago."

Prof. George E. Post, of the Christian College in Beirut, writing of the Parliament, says: "We proved that true religion is, always was, and always will be, one. Moslems claim that Adam, Noah, Abraham, Job, David, Solomon, Mohammed, and Christ were Moslems. I claim that every saved soul was and is a Christian. The name is nothing, the fact is everything. Abraham was saved when he was Abram, in uncircumcision. Isaiah did not know who the Wonderful and Counsellor was. David did not discern his greater Son. Socrates did not understand the drift of his own aspirations. Cornelius, as I firmly believe, was a devout heathen. I believe that we can go to every son of Adam and preach boldly the basic principles of our religion, satisfied that down in the depths of his heart there is a response, and that he must admit what we say, if it is rightly put, or as his own standard commands him, because it is contained in ours. If there

"were not a response, we should waste breath in our presentation of the cause."

The New York Evangelist published several articles on the Parliament of Religions, including one by the Rev. Dr. Henry B. Jesup, of Beirut, Syria, in which he says: "In the Parliament of Religions, Christianity was the hostess of the nations. She welcomed men of all faiths to come and see what the religion of the Bible can do for the individual, for society, and the world. She said to all, bring your best and your wisest men, and we will hear them courteously and patiently. The moral impression of such a scene was prodigious, and it will be lasting. We all need to know more of what non-Christian people think of us, that we may better understand them. It was wise to inaugurate such a congress during the Columbian Fair, that the spiritual element might rise supreme above the material. The spiritual has certainly proved the more vital and enduring, and will so continue when the material glory is forgotten."

But the space now at disposal forbids that these extracts be here extended.

* * *

Even before the World's Parliament of Religions was closed, a movement was almost spontaneously made for an extension of its beneficent and far-reaching influences. Preliminary committees were appointed and several meetings held with that end in view, and it was decided that the attempt should be made to extend the enthusiasm and blessing of this unprecedented reunion of men of all kinds of faith who had gathered at Chicago from all quarters of the globe—an event which proved a Pentecost, and, in wide circles, awakened a powerful religious revival. It was agreed that the name of the organisation should be "THE WORLD'S RELIGIOUS PARLIAMENT EXTENSION," and as a motto the word of Isaiah i, 18, was adopted: "*Come now, and let us reason together, saith the Lord.*"

Of the Local Committee, Dr. Frank M. Bristol, of the Methodist Church of Evanston, Ill., is the Chairman, and Dr. Paul Carus, Editor of *The Monist*, is the Secretary. Of the Associate Committee

of women, Mrs. Elizabeth Boynton Harbert is Chairman, and Mrs. Frederick Hawkins, Secretary.

A declaration of the aims and principles of the World's Religious Parliament Extension, which should serve to characterise the spirit of the organisation and indicate the line of work which it should follow, was approved of after a careful consideration by men of widely different religious convictions. This declaration reads as follows :

"The World's Religious Parliament Extension has been called into existence by the interest that was aroused through the Parliament of Religions, and is destined to continue the work so auspiciously begun. The movement is a symptom of the broadening spirit which is perceptible everywhere, in our understanding not less than in our sympathies.

"The purpose of the organisation shall be :

"1. To promote harmonious personal relations, and a mutual understanding between adherents of the various faiths ;

"2. To awaken a living interest in religious problems ; and above all—

"3. To facilitate the attainment and actualisation of religious truth.

"The World's Religious Parliament Extension is intended for the liberals as well as the orthodox ; for both the Christians and Jews of the Occident, and the Brahmans and Buddhists of the Orient ; and it will be broad enough to include all shades of belief without asking any surrender or compromise ; its service to mankind will be to bring home to men the indispensability of religion, to ascertain the truth whatever it may be, and help others to see the truth. This is to be done, not by sensational and not by sentimental methods, but by a patient collection and collation of facts, and by judicious investigation.

"If the success of an undertaking depends upon the need of the work which it proposes to perform, we may rest assured that the World's Religious Parliament Extension will become a great and important movement.

"We trust that the age in which we live is not, as is often as-

"sumed, irreligious, but more intensely religious than any previous age. There is only this difference, that the religious aspirations of to-day are more comprehensive, more liberal, more cosmic, and in a more conscious co-operation with science than before.

"The committee has received encouragement from Christians of the most important denominations, from Brahmans, Buddhists, and others. Especially have the Orientals shown themselves willing to investigate the religious problem, and hear with an open and impartial mind what others have to say upon it.

"The committee recommend to all religious organisations in Christian and non-Christian countries, the holding of meetings devoted to the aims of the World's Religious Parliament Extension; to invite men of different faiths; to listen to their presentation; and to discuss the differences in a brotherly and unprejudiced manner. Let our churches set the example to the Mohammedans, Brahmans, and Buddhists, and let us by all means encourage their search after the truth."

Subsequent events have abundantly shown that this extension movement was simply a necessity. It has been pressing for progress ever since the close of the World's Congress season. Instead of urging it forward, the President of the Congresses and the Chairman of the Parliament of Religions have rather held the movement back. This they have done, not from any want of sympathy with it, but as a reasonable safeguard against action stimulated merely by the enthusiasm engendered by the Parliament; and also to secure time for rest and recuperation after the arduous labors of 1893. But I think we are all now satisfied that the demand for an organised and efficient extension of the work and influence of the Parliament of Religions is so general and so earnest that it has become a matter of duty to respond to that demand, and to endeavor to supply it, as far as may be found practicable. Several instances of spontaneous movements in different localities for the purpose of such extension have come to the knowledge of the committee.

The formal inauguration of the World's Congress Extension work was, therefore, made a conspicuous feature of the Reunion and Celebration on last New Year Day. But it has not been thought

wise to confine the extension work to the department of religion alone. At the close of the World's Congress season, a proclamation was made, declaring the continuation of the World's Congress organisation for fraternal and historic purposes, and for the performance of such work as could not otherwise better be done. Accordingly, the Celebration was made, in a general way, representative of the whole scope of the World's Congress work, and encouragement given for the holding, not of religious meetings only, but also of similar gatherings for the purpose of promoting a like extension in other departments, including literature, science, art, industry, philanthropy, etc.

The formation of world-wide fraternities to continue the work planned for the World's Congresses of 1893 was announced as one of the original purposes of the World's Congress scheme. For it is not in religion only, but in all the other departments of civilised life, that there is need of a larger fraternity and co-operation than has hitherto been known. We earnestly sought and still desire to remove, as far as possible, the barriers of race, country, religion, custom, and the like, in order that, as was declared in the opening address at the first session of the Congresses, he who in any part of the world follows the path of duty may feel that he has the sympathy and encouragement of those who in every other part of the world are engaged in the same pursuit.

Not only the Parliament of Religions, but the entire World's Congress scheme was conceived and executed; and we now seek to extend their benign results wherever occasion may require or opportunity offer, in the spirit of that divine charity which "suffereth long and is kind, which envieth not, which vaunteth not itself, which is not puffed up, which doth not behave itself unseemly, which seeketh not its own, which is not easily provoked, which thinketh no evil, which beareth all things, which believeth all things, which hopeth all things, which endureth all things, which never faileth." (1 Cor. 13.)

In the spirit of this charity, we earnestly solicit the co-operation of the leaders of intelligence and virtue in all countries, to continue and carry forward into more full and fruitful effect, in their

respective localities, the objects and purposes of the World's Parliament of Religions and the other World's Congresses of 1893.

Any member of the Advisory Council of the World's Parliament of Religions, or any person who took part in the Parliament, may, in his own place, in any part of the world, in connexion with such other members or participants, if any, as may desire to co-operate with him, make the necessary arrangements for a meeting, or a series of meetings to extend the work and influence of the Parliament of Religions, substantially conforming to the principles, rules, and regulations which are above set forth. In localities where no such member or participant resides, any representative of any religious faith may take the initiative and call a meeting for the appointment of a local committee to conduct the proposed Religious Extension movement. The president and secretary of every such meeting, wherever held, are requested to send an account of the proceedings, without unnecessary delay, to the editor of *The Monist*, as Secretary of the Chicago Extension Committee.

Any member of the Advisory Council of any other of the World's Congresses of 1893, or any member of any committee of co-operation in such congress, or, in the absence of any such member, any representative of the work of such congress may take similar action to bring about meetings for a similar extension.

The Parliament of Religions will live. Its influence will endure, and will extend throughout the world. It will finally accomplish its high mission to unite all religion against all irreligion, and make the Golden Rule the law of religious association and intercourse. Under that divine rule, mankind will realise, as never before, the truth that "all religion has relation to life, and the life of religion is to do good."

We are not only deeply grateful to all who contributed to the marvellous triumphs of the World's First Parliament of Religions, but we also thank even those who have censured, because they misunderstood its noble work. For, though unwittingly, they also have served the sacred cause. Their criticisms have attracted larger attention, excited increased interest, and stimulated more thorough

investigation, and may thus prove, in the end, even more serviceable than their co-operation and commendation would have been.

The summer of religious peace will, indeed, not come in a day, but it is approaching more rapidly than can well be realised. The echoes of the Parliament of Religions will not cease, but will multiply a myriadfold in all the continents, adding their music to the morning prayer and the evening supplication of devout and hopeful hearts, and, preparing the way for a wider reign of peace, progress, and happiness than the world has hitherto known.

A few words from a summary of the *Results of the Parliament of Religions*, by the Rev. Dr. John Henry Barrows, whose masterly work in the organisation of the Parliament deserves and has commanded the highest praise, may well close the present paper. He says :

"It was the spirit of fraternity in the heart of America which succeeded in bringing together such widely separated exponents of religion. 'Enemies simply met and discovered that they were brothers who had one Father in Heaven.' To speak of the deep, tender feelings awakened by the presence, at the Parliament, of the truthseekers of the Orient, earnest, heart-hungry, believing they had much to teach as well as something to learn; their 'faces set toward God, and with some message from God': to recall the emotions awakened during the great opening and closing hours of the Parliament, would be to indulge in what many would deem a sentimental rhapsody; but it is not rhapsody to say that 'the age of isolation has passed, and the age of toleration and scientific comparison has come.' "

Let the grand work so auspiciously inaugurated at Chicago in 1893 go forward in renewed efforts, until all the world shall respond to its benign and gracious spirit; and the pure and noble peace it both prophesied and exemplified in the Parliament of Religions shall prevail among all the peoples of the earth, exalting, not only their religious, but at the same time their personal, social, business, and political life. This is the mission of the World's Religious Parliament Extension.

CHICAGO, ILL.

CHARLES C. BONNEY, LL.D.,
President World's Congresses of 1893.

THE WORLD'S RELIGIOUS PARLIAMENT EXTENSION.

EMERSON, our great poet-philosopher, has said: "America, thy name is opportunity!" And, indeed, here is the place to realise ideals which appear to be impracticable in Europe. The New World is like a new dispensation with new possibilities for a higher, nobler, and grander covenant. What was left undone in Benares, the centre of an old civilisation, in Jerusalem, a city sacred to three great religions, in Rome the venerable see of the Popes, and in London the home of modern science and industry, has been accomplished by the bold spirit of Chicago enterprise. A parliament of all the religions of the world, always regarded as a vague dream, has become an actual fact of history, the importance of which can hardly be overrated, for it will more and more be recognised as a landmark in the evolution of religion. But the duty devolves on us to utilise its blessing, to extend it to the whole world, and to make it a permanent factor for good in the future development of mankind. For this purpose the World's Religious Parliament Extension has been founded, in which it is proposed to establish friendly relations among all religions for a better mutual understanding, to awaken all over the world a lively interest in religious problems, and above all to facilitate the final and universal attainment of religious truth.

The significance of the World's Religious Parliament Extension is not merely local. All over the world, there are men who are serious in their religious convictions, who not only want the truth as they see it recognised by their brethren, but also desire to under-

stand the meaning of others with whom they disagree and are anxious to grow in both their comprehension of the truth and their sympathy for all honest inquirers. At the New Year's reunion, when, on the occasion of a celebration of the world's congresses, the World's Religious Parliament Extension was inaugurated, we witnessed at the Auditorium, the largest theatre of Chicago, a stately gathering of thousands of eager people who had come to listen to the speeches of the best known ministers of the city and its vicinity; and greetings were read from prominent religious leaders representing the greatest denominations and most important religious aspirations of mankind.

We here present some of the messages received, and let them speak for themselves.

GREETINGS FROM ROMAN CATHOLIC PRELATES.

Cardinal Gibbons writes to the Hon. C. C. Bonney :

"I regret very much that I must deny myself the pleasure of participating in the meeting to commemorate the 'World's First Parliament of Religions.'

"My official duties render it impossible for me to leave home at this time.

"I take this occasion to tender you my sincere and cordial congratulations on the success of the 'World's Fair Auxiliary,' and I have reason to hope that the results of this Congress, in which you took so prominent a part, will be long-enduring and far-reaching."

A telegram from Archbishop Ireland :

"Happy New Year to my friends of the World's Congress Auxiliary. You do well to perpetuate the memory and extend the influence of the great work of 1893. It was a marvellous work, leaving its deep ineffaceable mark in the world of thought and progress."

LETTERS OF SYMPATHY FROM BUDDHISTS.

H. Dharmapála, editor of the *Maha-bodhi Journal*, Calcutta, India, a representative of Ceylonese Buddhism, writes:

"The scene of last summer often comes into vividness, and

"then I see the panoramic picture of the brilliant gathering, the joyful faces, the cordial shaking of hands, the meeting-hall, and the welcoming of delegates. The spirit that animated me to take part in the deliberations of the Parliament of Religions still urges me on, and I know that if you will persevere in building up the superstructure on the bases of love and compassion laid by the late Parliament, you will succeed. The world needed a friendly assemblage and the Parliament was the result. The great evils that afflict mankind have to be combated, and who will do this but the free and democratic people of America?

"If your Government would take action upon your suggestion to print the proceedings of the several Congresses, it would be splendid, indeed. Such a mass of knowledge could never again be collected. I hope your suggestion will be carried out by the American Government. The sympathy of millions of people is with you, and that is enough to keep you safe and strong."

Shaku Soyen, a Buddhist High Priest of the Zen Sect, Kamakura, Japan, writes:

"I deeply sympathise with the plan of continuing the work of the Parliament of Religions. It appears to me that the present age is a period in which a religious reform is preparing itself all over the world, and it is our duty to investigate the truth with impartiality, so that its light may shine brighter than before. Some narrow-minded persons imagine that they can suppress the universal aspiration that called the late World's Religious Parliament into existence, which is the greatest spiritual event of our age. But they will not succeed, and I hail the movement of the Religious Parliament Extension which you have started. It is a new proof that progress cannot be checked. We have to fight a religious battle against superstitions and narrowness by taking the spirit of science and philosophy as shield, and the principle of universal brotherhood as sword. The distinction between Christianity, Mohammedanism, and Buddhism should not be made before the altar of truth, and we should be open-minded enough not to exaggerate the importance of the differences which exist between races, rituals, and languages. I sincerely hope that your

"movement will be successful so as to unite the religions of the world and lead them to the recognition of the truth."

Zitsuzen Ashitsu, of Hieisan, Omi, Japan, a Buddhist priest representing the Tendai Sect, writes :

"That the Parliament of Religions as undertaken by Western energy and religiosity has proved a great success and produced good results by dispersing the prejudices of narrow-minded people both in the East and in the West, by revealing the fundamental truths which are common to every religion, by explaining the foundation upon which alone man can find peace of soul and enter eventually into the life eternal of bliss, and by setting forth the ultimate ground of the religious unity of the world, is now fully established, not only in the opinion of the people at large, but also, and especially, by all scholars of prominence. These are important facts which we should always bear in mind.

"I am very glad to learn that you have founded an organisation under the name of 'Religious Parliament Extension,' which will pursue the noble and good principles of the Parliament of Religions. It is a Buddhistic idea that 'truth is but one, while its dress may be different,' and, so far as I can, I heartily wish to co-operate with you."

MESSAGES FROM ORTHODOX PROTESTANTS.

Bishop Benjamin W. Arnett of the African Methodist Episcopal Church writes :

"I am with you and the Committee heart and soul, and I hope that there will be a Parliament of Religions in every land, so that mankind may feel as we felt, and see as we saw at Chicago."

The Rev. Joseph Cook writes :

"My watchword for the World's Congress Reunion Extension and Celebration at the Auditorium, January 1, is :

"*Via Lucis, Via Crucis*, the way of light is the way of the Cross. Upward, Onward, Heavenward !

"The echoes of the Parliament of Religions of 1893 have been world-wide, and will endure for generations.

"These responses already prove that vital and enlightened or-

“thodoxy ought to rejoice in the general result of a wholly unpre-
 “dented assembly, which represented the religions of more than
 “half of the human race, and opened all of its sessions with the
 “Lord’s Prayer.

“The Parliament must be judged by its official record, edited
 “by its Chairman, the Rev. Dr. John Henry Barrows, and not by any
 “or all of the very numerous fragmentary and distorted reports of
 “it, which have misled portions of the public, at home and abroad.

“It was officially stated in the Parliament, at the outset, by
 “both President Bonney and Dr. Barrows, that the equality among
 “religions guaranteed in the meetings was parliamentary and not
 “doctrinal. No speaker understood himself to be making doctrinal
 “concessions of any kind. Every historic form of religious faith
 “was guaranteed a fair hearing. All non-Christian faiths now stand
 “face to face with Christianity, and are, many of them, being pro-
 “foundly modified by this contact. The pretences of several alien
 “faiths are a part of their defences. It is important that the former
 “should be understood, if the latter are to be overthrown.

“Many distinguished Christian missionaries not only took part
 “in the Parliament, but, after a year’s study of its results, have
 “recognised the immense value of its proceedings and official litera-
 “ture, in exhibiting to non-Christian nations the difference between
 “real and nominal Christianity, and the substantial unity of evan-
 “gelical Christendom in the essentials of religious doctrine and life,
 “in spite of diversities in denominations and polity.

“Christianity of the scholarly, Biblical, and aggressive type
 “stood forth in the World’s Parliament of Religions among non-
 “Christian faiths and philosophies as the *sun among candles*. And
 “this incomparable pre-eminence it can never henceforth fail to
 “have among all intelligent, devout, and conscientious students of
 “the self-revelations of God in human nature and history.”

PROPOSITIONS OF A CHRISTIAN MISSIONARY.

The Rev. George T. Candlin of Tientsin, China, writes :

“Since my visit to Chicago I have thought much on the old
 “subject, religious union, how it can be promoted, and how the

"grand object of the Parliament, as I conceived it, can be realised.
 "The more I think the more clearly I perceive how tremendous the
 "barriers are and how seemingly unyielding. Without such stimu-
 "lus as the Parliament of Religions has afforded me, I should find
 "myself *simply unable to believe in the possibility of union*. But noth-
 "ing can shake my confidence that the historic and consecrated
 "gathering in Chicago was the herald of a great spiritual movement,
 "and that the fire it has kindled will not be blown out till the refin-
 "ing and fusing mission is complete. The point of interest on
 "which I concentrate my attention is the relation of Christian to
 "non-Christian faiths. This I take to be the very gist and *crux* of
 "the missionary problem *in the world of thought*. The question of
 "union *within* the Christian Church may be left for the Church in
 "Christian lands to work out. I regard that, stupendous as the
 "changes involved will be, as a foregone conclusion. The forces
 "which will bring it to a triumphant issue are already in operation
 "and act with ever-accelerating effect. The attitude which Chris-
 "tians must assume to non-Christian faiths, and the feeling towards
 "Christianity to be promoted amongst non-Christians is peculiarly
 "the missionary's problem. This the great body of home-Chris-
 "tians are not in a position to solve. The solution is yet far off,
 "and it will be a terrible business to get through. But had the
 "Parliament of Religions any lower or less comprehensive ideal
 "than this—the complete reconciliation of religious belief through-
 "out the world? The question of questions then is what, precisely,
 "can we do to promote it? What steps which will put us a little
 "nearer the ideal, if only a few feet nearer, are practicable now?
 "This is where our sincerity will be put to the test, when we pass
 "from sentiment to action. To attempt too much will be to accom-
 "plish nothing. To attempt no action will be to leave the ideal a
 "beautiful but unsubstantial dream, fading ever into the dimness of
 "unreality.

"Nay, if it be—alas—

"A vision, let us sleep and dream it true!

"Or—sane, and broad-awake,

"For its great sound and sake,

"Take it, and make it earth's, and peace ensue.

"Now in the attempt to say what can be done, I am guided entirely by the analogy of that development which has already taken place in the direction of union amongst Christians. We now hear on all hands direct proposals for union amongst various sections of Christians. These proposals were not possible so late as half a century ago. Why? Because a prior state of mutual regard and respect had not been established. Christians of differing beliefs simply used to damn each other. Then union was impossible, and every one who proposed it was considered as irreligious as he was crazy. But as soon as they reached the stage where they honestly gave one another credit for good intentions, instead of calling one another emissaries of Satan, the spirit of tolerance prevailed, and together with a recognition of the comparative insignificance which lay in differences of creed, grew up a genuine consciousness of their common hold upon the truth. This is where Christians, many without quite knowing it, stand to-day. The old names, Catholic, Protestant, Anglican, Dissenter, Baptist, Methodist, Independent, Calvinist, Armenian, have lost their spell, and we know that as true and as lovely exhibitions of Christian character are developed under one form of faith as under another. How sane and healthy all this is. We at once see the good in such, understand the meaning of each; and, what is better, each begins to awake to a sense of its own limitations. We are now in sight of the goal, for we see that whatever becomes of the names, union will come by conserving and promoting all that is true and good in each.

"Now some such process must be attempted on the wider field of general religious union. Our present aim must be to get the mutual tolerance which subsists already between the sections of Christendom. We must begin by giving one another credit for good intentions. I do not see why we may not commence at once by the leading representatives of the various faiths who were present at Chicago, including all the distinguished representatives of Christianity, with Mr. Mozoomdar, Mr. Dharmapála, Mr. Vivekananda, Mr. Ghandi, the Buddhists of Japan, the high priest of

"Shintoism, and our friend Mr. Pung entering into direct covenant
"with each other:

"1. Personally never to speak*slightingly of the religious faith
"of one another. This I understand does not debar the kindly and
"reverential discussion of differences which exist, or the frank utter-
"ance of individual belief.

"2. Officially to promote among their partisans, by all means
"in their power, by oral teaching through the press, and by what-
"ever opportunity God may give them, a like spirit of brotherly re-
"gard and honest respect for the beliefs of others.

"3. To discourage amongst the various peoples they serve as
"religious guides, all such practices and ceremonies as *not consti-*
"*tuting an essential part of their faith*, are inimical to its purity and
"are the strongest barriers to union.

"4. To promote all such measures as will advance reform, pro-
"gress and enlightenment, political liberty and social improvement
"among the people of their own faith and nationality.

"5. To regard it as part of their holiest work on earth to enlist
"all men of ability and influence with whom they are brought into
"contact in the same noble cause.

"To these articles I can heartily subscribe myself. I do not
"see why others may not. I am sure you can subscribe to them,
"and Dr. Barrows, and Dr. Momerie, and Dr. Hawies, and the Rév.
"Lyman Abbott, and Rabbi Hirsch, and Dr. Boardman. I am
"sure that Mr. Mozoomdar can, for I have been reading his *Orien-*
"*tal Christ*, and I find the Brahmo-Somaj put forth such principles
"long ago. I hope he will not denounce me as a plagiarist. I
"think Mr. Dharmapála ought, and Mr. Vivekananda, and Mr.
"Ghandi, and Mr. Pung, and the others.

"The result within our own lifetime from united action of this
"kind, on the part of those of us who had the priceless privilege of
"coming together in council last year from all parts of the world—
"a 'band of brothers'—would be incalculable. All over the world
"man would be crying to his fellow-man in cheery tones of brother-
"hood, and answering echoes of love and the holy name of religion,
"no longer prostituted as a divine sanction to metaphysical wran-

"gles, would represent everything that binds men's hearts in holiness, and everything that opposes sin and selfishness.

"In the name of all that was greatest in the Parliament of Religions, the common ties and common aspirations of humanity which it represented; in the name of whatever in it was most prophetic of the future, I ask you, our noble President, you who have the warm love and unstinted confidence of us all.—Why may we not do it?"

* * *

It is to be hoped that the World's Religious Parliament Extension will contribute toward that common ideal of all religious minds which will at last unite mankind in one faith and prepare the establishment of a church universal. Rituals and symbols may vary according to taste, historical tradition, and opinion, but the essence of religion can only be one and must remain one and the same among all nations, in all climes, and under all conditions. The sooner mankind recognises it, the better it will be for progress, welfare, and all international relations, for it will bring "glory to God in the highest, and on earth peace toward the men of good-will."

We can see as in a prophetic vision the future of mankind; when the religion of love and good-will has become the dominating spirit that finally determines the legislatures of the nations and regulates their international and home politics. Religion is not for the churches, but the churches are for the world, in which the field of our duties lies. Let us all join the work of extending the bliss of the Religious Parliament. Let us greet not our brethren only, but also those who in sincerity disagree from us, and let us thus prepare a home in our hearts for truth, love, and charity, so that the kingdom of heaven, which is as near at hand now as it was nineteen hundred years ago, may reside within us and become more and more the reformatory power of our public and private life.

EDITOR.

A PIECE OF PATCHWORK.¹

I HOLD it to be a cardinal point in this busy world of ours," says Dr. Thring, "that all who are in earnest should help each other, and that every person engaged in life-work should if possible appear at the call of a fellow worker." I am here to address you in response to such call.

You will doubtless remember how much talk there was a few years ago about the best hundred books. Well, I confess that it seems to me that there are just three great books, and that the aim of all our schooling should be to teach our scholars how to read them aright and to act upon their teachings. These three great books are the book of nature, the book of art, and the book of life. I am well aware that this classification is open to criticism. In its broadest acceptation the book of nature—that is if we include human nature (and why should we not include it?)—covers the whole field; while on the other hand the book of life may with equal cogency be said to be all-embracing, since every interpretation of nature and all artistic expression are the products of our life-work. But let us not quarrel over definitions. Let us rather see in what spirit we are to read these books.

First, let us read them for ourselves, not merely hear about them from others. Thus only can we become not only learned but wise. For as Lessing tells us, "Learning is only acquaintanceship with the experience of others; knowledge is our own." Remember that the common-sense which we all prize so highly is the outcome of individual and personal experience. "A handful of common-

¹An address to teachers. The number of quotations justifies, I think, the title.

sense," says a Spanish proverb, "is worth a bushel of learning." Let us then read for ourselves the book of nature, the book of art, and the book of life, using the opinions of others merely as a commentary thereon.

Secondly, let us read them for our profit and for self-development. Let us never be ashamed of developing even though this involves, as it must involve, many confessions of past imperfection and error. The frog is not ashamed (or presumably would not be, were he self-conscious) of ceasing to be a tadpole; nor the butterfly of having risen above its greedy caterpillar phase of development. So much inconsistency is essential to progress. It was with this in his mind that Emerson said: "Suppose you should contradict yourself; what then? A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines. With consistency a great soul has simply nothing to do." Remember that the inconsistency Emerson speaks of is that which is the outcome of development. Of this inconsistency be nowise ashamed. Lowell was right when he told us: "The foolish and the dead alone never change their opinions."

Thirdly, let us read them not only for our profit but also for our enjoyment. "No pleasure," said Bacon, "is comparable to the standing on the vantage ground of truth."

Fourthly, let us read them with modesty and humility; with a constant salutary sense of our own profound ignorance—yes, even the prize-winners among us. Sir William Temple has here a word in season for us: "Nothing," he says, "keeps a man from knowledge and wisdom like thinking he has both."

And fifthly, let us read them with reverence. "Reverence," says Mr. Frederick Pollock in his work on Spinoza, "will never be wanting from those who study nature with a whole heart; reverence for the truth of things, and for all good work and love of the truth in man." On the other hand: "The scornful spirit," as Mr. Stopford Brooke tells us, "is the blind spirit and the unthoughtful one; and to its blindness nature displays in vain her beauty and man his wonderful life; contempt sees nothing, and seeing nothing has no materials for thought. But he who bends in loving reve-

rence before the beauty and the majesty of the universe, receives its teaching at every pore."

So much for the spirit in which we should read. You will no doubt remark that, with a touch of that inconsistency of which I spoke just now, I am endeavoring to enforce the importance of a first-hand reading for ourselves of the three great unwritten books, through second-hand quotations from written books. But of course you will understand that, in urging you to learn directly of nature and art and life, I would by no means have you disregard the teachings of those who deserve to be heard *just because they themselves have done this very thing*. Let what you read in the written page be but the seed which shall bear fruit in your own mind. As Bulwer Lytton says: "Never think it enough to have solved the problem started by another mind till you have deduced from it a corollary of your own." Depend upon it, Sir Thomas Browne was right when he told us: "They do most by books, who could do much without them."

Let me now pass on to say a few words concerning each of our three great books; and first concerning the book of nature. The direct appeal to nature is for us in England associated with the name of Francis Bacon, who, though he was "weak in science," was "strong in the philosophy which sought its materials in science." He was, as George Henry Lewes said, "rather one who sounded the trumpet-call than one who marshalled the troops." And over his work may be written his own words: "Man, the servant and interpreter of nature, can act and understand no further than he has, by work or contemplation, observed the method of nature."

What, then, are the cardinal teachings of the book of nature? Sir Thomas Browne, the span of whose life overlapped that of Bacon's by some twenty years, shall answer this question. "There is," he says, "no liberty for causes to operate in a loose and straggling way; nor any effect whatsoever but hath its warrant from some universal or superior cause." Or if you would have a more modern answer, let Emerson be called upon to speak: "Man," he tells us, "has learned to weigh the sun, and its weight neither loses nor gains. The path of a star, the moment of an eclipse, can be

determined to the fraction of a second. Well, to him the book of history, the book of love, the lures of passion, and the commandments of duty, are opened: and the next lesson taught, is the continuation of the inflexible law of matter into the subtle kingdom of will, and of thought; that, if in sidereal ages, gravity and projection keep their craft, and the ball never loses its way in its wild path through space—a secreter gravitation, a secreter projection, rule not less tyrannically in human history, and keep the balance of power from age to age unbroken. Religion or worship in the attitude of those who see this unity, intimacy, and sincerity; who see that, against all appearances, the nature of things works for truth and right forever.” Does it perhaps seem that there is a want of connexion between the reign of law so graphically indicated in the first part of this quotation and the religious attitude of its close? If so, I think it is because you have read nature too superficially. If the first lesson of nature is the inflexibility of law, the second lesson of nature, if not for the man of science at any rate to the philosopher, is that which has been stated in a thousand ways, but by none more tersely than by Schelling when he says: “Nature is visible spirit; spirit is invisible nature.” The American divine, Theodore Parker, gives utterance to the same thought, in language touched with religious emotion, when he says: “The Universe, broad and deep and high, is a handful of dust which God enchants. He is the mysterious magic which possesses the world.” And Dr. James Martineau has a realising sense of this second lesson in the teaching of nature when he exclaims: “Beneath the dome of this universe, we cannot stand where the musings of the eternal mind do not murmur round us and the visions of his loving thought appear.” Half truths are proverbially dangerous. If we trace forward into the domain of mind that universality of law which was first taught us through the study of nature, we must also trace backward into the material universe that informing spirit, the same in essence but different in manifestation, which is the very soul of our mental life. This, as it seems to me, is the teaching of the book of nature.

And so I pass to art. Here lack of time forces me to dwell not on the outer form but on the inner spirit. “Great art,” says Ruskin,

"is the expression of the mind of a great man, and mean art, that of the want of mind of a weak man." And again speaking of one of Turner's paintings he says: "The picture contains for us just that which its maker had in him to give; and can convey it to us, just so far as we are of the temper in which it must be received." It is the human mind-element at the back of the art product to which we must pierce in our reading of the book of art. Browning knew and taught us this:

"For, don't you mark? we're made so that we love.
First when we see them painted, things we have passed
Perhaps a hundred times, nor cared to see;
And so they are better, painted—better to us
Which is the same thing. Art was given for that;
God uses us to help each other so,
Lending our minds out."

Art reveals; and its revelation is twofold. It reveals nature, and it reveals the artist as an interpreter of nature. In reading the book of art, then, you are getting closer to the spirit of nature, and you are communing with a human soul. Miss no opportunity of such goodly and ennobling communion. Make the artist reveal himself to you in the symphony, the poem, the painting, the chiselled marble, the cathedral aisle. Goethe gives us good advice in his "Wilhelm Meister." "One ought," he says, "every day at least to hear a little song, read a good poem, see a fine picture, and, if it were possible,"—how much there lies in those four words!—"if it were possible, to speak a few reasonable words." Note well—"a few reasonable words" is the utmost that can be expected. What a reproach to some of us who are bubbling over all day long with much noise and much froth! Was it not Pope who said: "It is with narrow-souled people as with narrow-necked bottles; the less they have in them the more noise they make in pouring it out"?

Do not be ashamed of hearty admiration as you read the book of art. There is a silly modern habit, bred of supercilious inanity; a habit of feigned indifference in the presence of great art. Carlyle was truer to human nature at its best when he said: "It is the very joy of man's heart to admire where he can; nothing so lifts him

from all his mean imprisonments, were it but for moments, as true admiration." The more you read of this book the more will your life-work be ennobled. "For the narrow mind," says Goethe, "whatever he attempts is still a trade; for the higher an art; and the highest, in doing one thing, does all; or, to speak less paradoxically, in the one thing which he does rightly, he sees the likeness of all that is done rightly."

And so we pass to the book of life. It is a book we must all read for better, for worse. Through it we get our final and most searching schooling. Speaking, I think, of Stirling, Carlyle says: "To him and to all of us, the expressly appointed schoolmasters and schoolings we get are as nothing, compared with the unappointed incidental and continual ones, whose school hours are all the days and nights of our existence, and whose lessons, noticed or unnoticed, stream in upon us with every breath we draw." "We accompany the youth," says Emerson, "with sympathy, and manifold old sayings of the wise, to the gate of the arena, but 'tis certain that not by strength of ours, or of the old sayings, but only by strength of his own, unknown to us or to any, he must stand or fall." How much then depends on what faculties in the youth we have trained and educated! Bad for us indeed, if Ruskin's sweeping indictment of us all is true. "The main thing," he says, "which we ought to teach our youth is to *see* something—all that the eyes which God has given him are capable of seeing. The sum of what we *do* teach them is to *say* something."

The book of life is one that deals with action and strenuous endeavor; and its teaching is that we too should be active. Be up and doing what is good and useful, is its continual burden. "To get good," says Dr. Martineau, "is animal; to do good is human; to be good is divine." "A man's true wealth," we read in one of the sacred books of the East, "is the good he does in this world. When he dies mortals will ask what property has he left behind him; but angels will inquire, 'What good deeds hast thou sent before thee?' Terrible is the picture drawn in another Oriental parable. "In a region of black cold wandered a soul which had departed from the earth; and there stood before him a hideous woman,

profligate and deformed. 'Who art thou?' he cried. To him she answered: 'I am thine own actions.'" These are the words of allegory. But do we not all constantly stumble on our own deeds, stalking abroad in this work-a-day world, and meeting us with reproaches or with smiles?

I am speaking to many whose life-work is, or is to be, educational. Read the three great books; drink deep of their manifold lessons. Remember what Goethe says: "There is nothing more frightful than a teacher who knows only what his scholars are intended to know." In these latter days we might say that such a one is not a teacher but a text-booker. I think it behooves us, of all people, to realise the continuity of mankind—that which Pascal expressed when he said: "The entire succession of men, through the whole course of ages, must be regarded as one man, always living and incessantly learning." We, therefore, who are teachers, are educating not only boys and girls, not only young men and young women, but the mankind that is growing from age to age. As we ply the educational loom we are weaving the fabric of futurity. Every mistake we make, whether through ignorance or through carelessness, will leave a blemish in the final product. But on the other hand, as Ruskin says: "Every noble life leaves the fibre of it interwoven forever in the work of the world." To express the same thought through another metaphor, we are all partners in the firm which, when it originated long ago in the days of the monkeys, was styled, "Self, Sons, & Co.," but which, in our own days, has been incorporated as "The Society of Man—*unlimited*." "It is," as Burke says, "a partnership in all science; a partnership in all art; a partnership in every virtue and in all perfection. It is a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born." If our reading of the book of life do not impress upon us, first, the fact that we are all of us partners in the society of man, and, secondly, that each of us, as a partner, is in honor bound to loyally serve the firm in his own particular corner of its operations;—if it have not taught us this, we have been careless readers and have failed to grasp its lessons. "It has been said," says Goethe, "and over

again said, 'Where I am well is my country!' But this consolatory saw were better worded: Where I am useful is my country! And now if I say," he continues, "Let each endeavor everywhere to be of use to himself and others, this is not a precept, or a counsel, but the utterance of life itself."

Lastly, remember that there are two stages in our life's education; first, an imitative stage, and, secondly, a stage of originality. The first is an essential preliminary to the second. "It is only the imitative mind," said Winwood Reade, "which can attain originality; the artist must learn to copy before he can create." But do not be content to remain in the first stage. As Emerson tells us: "There is a time in every man's education when he arrives at the conviction that imitation is suicide; that he must take himself for better, for worse, as his portion; that though the wide universe is good, no kernel of nourishing corn can come to him but through his toil bestowed on that plot of ground which is given him to till. The power which resides in him is new in nature, and none but he knows what that is which he can do, nor does he know until he has tried." Conceive an ideal of what you would be and bend to its attainment all the forces of your nature. Endeavor to become in vital fact the ideal of your conception. You are bound to fail; but only through failure can you deserve success. Therefore, do not be disheartened if, after all, the results of your efforts seem insignificant. Remember what Mrs. Browning says:

"Let us be content, in work
To do the thing we can, and not presume
To fret because it's little."

And now two more quotations, and I shall have fulfilled my task. The first is from the author of the *Euphues*. "Frame, therefore," says John Lyly, "your lives to such integrity, your studies to the attaining of such perfection, that neither the might of the strong, neither the mallice of the weak, neither the swift reports of the ignorant, be able to spotte you with dishonestie, or note you of ungodliness. The greatest harm that you can do unto the envious is to do well; the greatest corasive that you can give unto the ignorant is to prosper in knowledge; the greatest comfort you can be-

stow on your parents is to live well and learn well; the greatest commodity that you can yield unto your country is with wisdom to bestow that talent that by grace was given unto you."

And my last quotation is that quatrain of Sir William Jones's, translated from an Arabian source, which will doubtless be familiar to some of you:

"On parent knees a naked new-born child
Weeping thou sat'st, while all around thee smiled.
So live that, sinking in thy long last sleep
Thou calm may'st smile, while all around thee weep."

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THE WELL-SPRINGS OF REALITY.

THE term "reality" here includes all phases of actual experience, "inner" or mental, "outer" or perceptual; in short, all modes whatever of what we call knowledge or consciousness. An inquiry into the well-springs of reality is, therefore, an inquiry into the grounds of the genesis and content of consciousness, and is, as all such attempts must be, metaphysical. It is, indeed, impracticable for any hater of metaphysics to moot such an inquiry without stultifying himself, for the solution of the riddle is itself metaphysics. Not without amusement do I note the number of agnostics, positivists, materialists, and others who have failed to realise this fact, and no doubt most of my readers must have been similarly regaled. It must suffice now merely to emphasise its importance.

In Part II of my *Riddle of the Universe* I have endeavored to show that any solution of this *crux* must be *idealistic*, that is to say, must find the ultimate ground of reality to be essentially the same as consciousness. I say "essentially" the same because, as I have shown at length, the ground, though illuminated in and as consciousness, is not as *prius* itself conscious, but *meta* or *superconscious*, potentiality, not actuality. I have farther shown—and as yet I have found no critic resolute or honest enough to face my arguments—that this ground is no mere Hegelian idea, wherein numerical difference is lost, but rather a unity-plurality, demanding the formulation of a monistic monadology as the basic truth of philosophy. In no sense can this idealistic ground be regarded as *reason*, as so many modern echoers of Hegel declare. And in no sense, again, can reason be said to mediate the production of our own sensuous experience.

These are all positions of leading importance, and I propose here to offer some observations which bear upon them. But of necessity my allusions must be fragmentary. Those who desire a fuller survey of them will find this in my already published work and the forthcoming volume of essays which I am now preparing for the press.

What, then, in the first place, is our warrant for accepting idealism at all? Assuredly this—that we must found our thinking on experience, and experience is no other than states of consciousness. Mind and world, mental facts, and object facts *differ*, it is true, in notable regards (and the differences have been frequently catalogued by thinkers), but they agree in the all-important point, which overrides all else, of being states or determinations of a subject. The *idea* I have of a tree is no more and no less a phase of my subject than is the original *perception* of which it is an echo. I see no possible way of escape from this position. Of course, we must not, like the so-called psychological idealists, make the world an appearance only within "mind"; "mind" is a general name for a fluctuating *series* of states historically later than the first sensations, and so no possible container or producer of these. In contrast to this view it will be necessary to maintain that "mind" and "world" subsist only in relation within the individual ego or monad, the spiritual ground of those two contrasted aspects. But here an objection may be entered. "By what right," it may be asked, "do you speak of an *individual monad*?" Echoers of Hegel and his like will be, of course, up in arms. In answer to these objectors I will point out that on their own showing philosophy should be only the rethinking and rereading of the "given" or experience, and that this experience *itself decides the problem*. Nothing is more certain than that this experience exhibits our "selves" as radically self-contained or impervious; *A's* consciousness never penetrating that of *B*, or *vice versa*. In "I am I"—a *feeling* not a thought, and a feeling realised far more vividly in the presence of things than thoughts¹

¹ "Things," not being thoughts, but determinations of the *contrasted* object-consciousness.

—we have the individuality of the individual proclaimed outright. That which distinguishes between “mind” and “world,” and yet at the same time reveals itself *in them and through them*, is no vague “subject of consciousness in general” as some latter-day idealists still fondly believe, but a monad, that is to say, a unitary centre of consciousness, actual *or potential*.¹ So clearly does experience warrant this standpoint that one may well be at a loss to discover why the vague subject “in general” was ever posited at all. Without doubt, so far as Western philosophy is concerned, we have to thank the Post-Kantians for this dubious boon; the rush for *conceptual abstractions* having for long been dominant. Hegel, indeed, in elevating the concept into the *prius* and striving in grotesque fashion to exhibit it as the very substance and driving power of the universe, brought idealism finally into the gravest disrepute. In assailing his arid panlogism, Schopenhauer did most useful work, but he, too, was too impressed with the “in general” bias to pluralise adequately the WILL which was to oust the concept. He paved the way, however, unwittingly for a rehabilitation of a monadology such as was outlined by Leibnitz, as from a different standpoint did Herbart. This rehabilitation I have endeavored to promote still further; the first fruits of it being already before the critics. Numerous as are the contentions that buttress this attempt, they pale, however, so far as concerns man, before the testimony to monadism furnished by our ordinary workaday consciousness. The individual monad or subject, in short, is a *datum*; the universal subject contended for by some *may* be a figment and can at best receive only indirect inferential support. All we know immediately is—ourselves.

Positing a subject as ground, source, and sustainer of our fugitive states of consciousness is no longer, I opine, avoidable. As I have argued at length elsewhere, “No subject, no flux of sensations; no subject, no order of sensations in space; no subject, no memory, no expectation; no subject, no introspection; no subject,

¹ The actually conscious segment being comparable to a star-point seen against the vast dark background of the sky.

no explicit I-reference." The necessity of positing a subject is, however, admitted by most modern idealists, though touching the questions of its unity, consciousness, and rationality as *prius* great disputes obtain. Many Neo-Hegelians posit only one "eternally complete" and *rational* consciousness as ground of experience in general—this implies a peculiar theism which lends itself usefully to thinkers anxious not to seem heterodox. Schopenhauer, again, ~~denied the rationality of his *prius*~~, the blind and unconsciously world-spinning will. Other idealists, again, object to will as much as they do to reason when adduced as *prius*, and seek refuge in a consciousnessless spontaneous ground of which "will" and "reason" are at best mere phenomenal aspects. Probably the ultimate decision of philosophy will be in favor of a monistic monadology, embodying this latter view. I have already pointed out that a *merely* monistic ground is at variance with the experience on which all philosophy must found.

To return, however, to our view of idealism, the view that reality, as well mental as physical, is appearance in a monad, we find ourselves face to face with an obviously subjective idealism. And dwelling especially on the *crux* of physical reality, we seem forced to include everything within our monads. To a certain extent this course would be justified. But when once we have decided that perceptions are states of ourselves, there arises the further question as to how these perceptions are produced, how experience of the "outer" sort is possible. Why in short seeing that these perceptions are only states of our monads, do we have them after the actual fashion and manner in which they arise? The monad in *becoming conscious* clearly unfurls itself, but why in the way of which we are momentarily aware? In the answer to this problem we may, as I have shown, find a clue to the secrets of the universe.

The answer lies in a monadology and is too elaborate to condense within the limits of a brief paper. It includes, of course, the explanation of the working of those bodily, or rather cerebral monads, in relation to which our monads pass into consciousness. Ignoring this explanation, it is at present of chief moment to make it clear in what way the positing of these subordinate monads can be

justified. I answer in the following way, limitations of treatment being, of course, here inevitable.

Subjective idealism must of necessity find prominent recognition in philosophy—primarily and immediately “the world is *my* presentment.” But I believe that beyond the pale of my monad or subject, other human subjects are perceiving, willing, and thinking, and this belief, the product of association, is involuntarily thrust upon me, enforcing my practical allegiance to it. It is only in the study that a Fichte or Hume questions the actuality of “selves” other than himself, in the market-place inseparable associations leave him no option. My readers, however, not questioning the accuracy of the belief, it remains to ask them to exploit it. By dint of the following argument we may achieve an important result, enabling subjective idealism to receive an objective idealist supplement reconciling it adequately with the fullest demands of vulgar common sense. I cite a passage from my *Riddle of the Universe*, for which I cannot at present offer a better substitute :

“As an aspect of its content, the subject holds before itself the world, the whole play of perceived objective relations. But scattered through this consciousness are various objects (human and animal organisms) which invite extra-experiential reference to corresponding ejects. Now the validity of this reference is not denied by the wildest sceptic. Inasmuch, however, as this reference is based on observed changes in the objects, it follows that *specific* changes within *my subject* are *symptomatic of changes beyond its sphere*. Thus the shifting contorted features of an angry man are nothing more for my subject than so many colors, lights, and shades, having varying positions in space, and recalling the usual bundles of interpretative mental states. They are simply phenomena of its consciousness. But they are phenomena with an extra-experiential reference to an angry consciousness of which *I have no direct experience*, but which is as real as my consciousness that seeks to symbolise it. The conclusion is, therefore, inevitable that, as certain changes in my subject cohere with other changes beyond its sphere, the transcendent validity of causality must be held established. This result cannot be ignored by idealism.

“And now let us look further. The indices of the changes taking place in other subjects are, as above stated, changes in our perceptual consciousness of objects. But suppose a case where, from pathological or other reasons, the movements of a face have no longer a true reference to a consciousness beyond our experience. Suppose, in short, that the man goes to sleep. What then? Does the *mere* temporary eclipse of that alien consciousness rid our perceptions of their prior extra-

experiential reference? Are we to suppose that for this trivial reason the play of our shifting percepts no longer answers to an activity beyond experience? This is just what we cannot do. Having already a *posteriori* proof of the transcendent validity of causality, we shall endow it with a yet further significance. We shall contend that the changes in our perceptions are somehow allied with extra-experiential changes to which the eclipse of the alien consciousness makes only an inconsiderable difference. At last an activity other than that of a human subject is in evidence. We must recognise that *the changes correspond to activities not in the consciousness of another human subject, but to activities with which that consciousness is normally only associated.* Thus indeed are we able to establish the activities of what are ordinarily spoken of as the noumena of objects; for the same reasoning which holds good of the organism correlated with the eclipsed consciousness *holds good of all objects alike.*"

At first sight it might appear that we are only able to make good Kantian "things-in-themselves" as the occult causes or part-causes of our perceptions. And in a sense it is true that things-in-themselves admit of a vindication if we follow up this clue. Unquestionably the activities treated of obtain *independently of our consciousness*, are, indeed, part-causes of the mode in which that consciousness actually unfolds. But, on the other hand, these things-in-themselves are no *surds* or unknowable *x*'s, but essentially the same as what we know as consciousness—activities in short of a spiritual but a-conscious sort. An assertion of this kind may seem out of keeping with a philosophy which founds and builds wholly on experience. But really the reverse is the truth, for if experience is a system of variously related states of consciousness and never, *ex hypothesi* anything else, any activity which we can moot must be expressed in terms of consciousness. And in fact the wretched *abstractions* "matter," "force," "energy," "unknown substance," etc., etc., on which materialists and the rest base their creeds, are themselves only names connoting aspects of the ordered *states of consciousness* we call "world." They are names only for *phases of our object-consciousness* divorced from the variety of other phases in connexion with which they are known. The fact is, that so far from being able to posit any activity *alien* in essence to consciousness we cannot possibly even moot this activity except in words. It is *not even present* to our intellect or imagination as a subject which can be

discussed—it is wholly and absolutely a *verbal myth*. We have arrived, then, at this position.

1. There are activities which are to be posited as obtaining independent of my consciousness or any human consciousness.

2. These activities are spiritual, i. e., essentially the same as consciousness, though probably *without self-feeling*; consciousness, as I have shown elsewhere, being a mere *star-point* visible over against the indefinitely vast background of the Metaconscious.

So far, so good. But now it is necessary to make our knowledge of these extra-experiential activities *more precise*. Are they *aspects* only of some unitary spiritual whole such as the "idea" of Hegel or the "unconscious" of Von Hartmann; or are they energies of monads—of plural centres of consciousness (actual or *potential*)—the question of the relation of these monads to a universal subject remaining over for later treatment? Following up the clue given by causality, an *empirically acquired* but provably effective ally, we may proceed to establish a monadology.

Obviously from our knowledge of the human monad—the individuality of which is self-revelatory—the presupposition is in favor of the positing of monads in other domains than the human, and coming to interpret the results of science we find that monads, and monads alone, can serve as an even plausible interpretation of these results. This is especially noticeable in the case of chemistry, the atomic doctrine at present a mere *scaffolding of symbols* being adequately transformed and brilliantly illumined by monadology. That this theory, formulated to cope with most varied and most remarkably convergent streams of evidence, is *merely* a stage in Reason's interpretation of itself, as Hegelian abstractionists have to hold, is one of those absurdities that have made metaphysic a laughing-stock. It is much more than this, a very abstract presentment of the relations of monads, viewed, as the *interests* of men of science require, in a dominantly *mechanical regard*. The irony of destiny appears here when we contemplate atomist theory. The terms in which atomic relations are discussed are all drawn from observation of activities within our own consciousness, and, indeed, could have no other origin, and necessarily, therefore, in many cases have a

notoriously subjective import ("affinity," "attraction," "preference," "repulsion," etc., etc.). We may, in fact, affirm that the monadologist only clears up with full reflective consciousness what many a hostile man of science grasps confusedly. An entire rethinking of chemistry and physics on monadological lines will doubtless be one of the leading feats of the next century. A work of such a character would be of momentous interest and one valid page of it would outweigh all the arid scholasticism of Hegel's "logic" and that of the modern guild-philosophers who have smothered idealism in words in the hope of exalting "reason."

Monadology is obviously an enormous subject, and I do not, of course, pretend here to do more than indicate aspects of this fact. Much has been already done by Leibnitz, Herbart, and others, and I, too, have done my humble best to strengthen and extend monadist doctrine. But by far the greater part of the work remains over for others to complete. With a vital meaning for the *crucis* of external perception (normal and supernormal), of freedom, of the neurosis-psychosis relation, of sensation-genesis, of ethics, theism, pessimism, the world-purpose, import of the individual, etc., etc., and, indeed, of all metaphysical questions whatever, monadology may well task the most earnest efforts of the inquirer. Monads, human, subhuman, superhuman, are the WELL-SPRINGS OF REALITY, and no idealism ignoring them can prove adequate. Unlike Hegelianism, which never gets near a fact, and deludes the book-worm with word-spinning and hollow dialectic, monadology admits of exploration by induction on the lines of the complete method.¹ Once established in decently adequate fashion it must appeal to every storm-tost wayfarer as the phrases of academic scholasticism never did and never will. The "riddle of this painful world" as treated by the guild-philosophers breeds pessimism and disgust with metaphysic. Interpreted by a severely critical monadology, it will be found to lose its forbidding aspect. I am, of course, only in favor

¹ Doubters may be referred, in passing, to the pregnant declaration of Mill, *Exam. of Sir W. Hamilton's Philosophy*, p. 259, 5th edition, for the timely observation that induction is not necessarily confined to the sphere of the individual consciousness.

of admitting results where the latter are enforced by careful inquiry (though some of my less honest or more lazy critics have thought fit to say otherwise). The consolatory aspect of a doctrine should be obviously only an afterthought.

Before closing this paper I should like to say a few words touching the current Hegelian treatment of external perception, a treatment which a monadist rethinking of things seems to render wholly superfluous. As is so well known, Kant, anxious to import universality and necessity into the external experience, loosened by Hume, thought fit to assume various categories or "pure concepts," subsumed under which phenomena unified in space and time become *objective*. In the Kantian handling of this hypothesis, the categories are discussed as if superimposed by the ego on the phenomena (the "matter" of which is "given" and unified in space and time), and *importing into* them universality and necessity. With Hegel the categories are *immanent in* the phenomena, reason or the concept being implicit in nature previous to becoming explicit in our adult consciousness. It is urged that experience is not possible except on the lines thus indicated. A more absurd contention could scarcely be advanced.

On what ground is the category-doctrine defended? On this—no such categories, no experience such as we have. How are the categories got at, as they are never given unalloyed to the inquirer? By abstractly analytic reduction of experience to its "elements," obviously the only resource. But it is as well in this process to see that the "elements" arrived at were *really conjoined primarily* and are not mere figments of the philosopher. Take the so-called category of being. Now I would urge that no such category is immanent in objects at all—"being" is a general conception only empirically derived from observation of things. "Ah," says the Hegelian, "you forget that you cannot abstract from things what is not there to be abstracted!" This is a good objection, as it enables one to state the opposed view more clearly. The truth is that "being" is not a thought or concept *save for reflexion*; the being of things is a *feeling, a sensation*, and no thought or concept at all. And how does it arise? From the *concrete opposition* of its content to itself by which

the monad mediates its consciousness, an activity wholly alien to the *contemplative passive and abstract* character of reason. I am glad in this connexion to note that that able critic of Hegel, E. Belfort Bax, has in his *Problem of Reality* declared that being in the percept is not logical but alogical. Good this, but why does not Mr. Bax go further? Clearly, however, the Hegelian dialectic must suffer if being is thus treated as alogical. The starting point declared faulty, what of the succeeding journey? Mr. Bax's dictum should cause the Hegelians to rage.¹

Mr. Bax would retain nevertheless such categories as "causality," "substance," etc., as instruments wherewith his Subject of experience in general constructs our perceptions. This subject thinks the categories into the presentment, and *we* get the result as a ready-made world of objects. I have previously stated my objections to this "universal subject" theory and need not repeat them here. Even on monadist lines, however, it might be urged by Bax that categories latent in our subjects help to construct objects. But the hypothesis is superfluous. The *native* objectivity of sensation is admitted in his treatment of being, and, this important admission once made, the call for the other categories loses its force. For the rest we may rely on "association" as so richly expounded by British psychologists, such "association" (whether harking back to ancestral experiences or not) being viewed as reflexion in our central monads of the workings of the monads of our brains. As I have urged elsewhere :

"Not categories, but cerebral monads mediate the *fuller* objectivation of sensation into the ripe world we know ; their activities being passively duplicated in the subject [central monad] as the infant consciousness dawns. *Nerves and brain wirepull the adjustments of organisms to surroundings and the reflex of this adjustive mechanism in the subject is the very process of the fuller objectivation itself.*"—*Riddle of the Universe*, p. 337.

While dwelling on this point, I will add that a grave mistake

¹Stirling well observes, and the concession from him is striking, that Hegel's logic, "though containing much that is of *material* importance, is still principally *formal* . . . if the start be but an artifice and a convenience, is it all ascertained yet that the means of progress, the dialectic, is in any respect better?"

of the past, and, to a lesser extent, of the present, was and is the view that "relations" are necessarily generically other than the supposed terms they relate. It would be better to recognise "relations" as really only a kind of sensations as *particular* as the other sensations along with which we have them. "Being" in the object is a sensation, so, too, is "causality," which consists mainly, if not wholly, of ideal sensations of effort felt along with some time-sequence, and felt, too, with varying force *according to the nature of the time-sequence*; a most notable fact. A metaphysic of real utility should concern itself not with phantoms of the book-worm, such as categories, but with the origin of the many-hued concrete sensory experience whence these categories and indeed all concepts are ultimately derived. Conception is the process of "taking together" *agreeing aspects* of the given: a concept is the result, a name connoting this agreement. To say that we abstract concepts from things is not to say that the concepts are implicit *as such* in them, like plums ripe for picking. There is no concept "tree" in the perceived world, but only indefinitely numerous concrete trees which resemble each other in certain ways bearing on our interests and are classed accordingly. Similarly there are no concepts being and substance "realising themselves in multiplicity," as the phrase goes, in this world. There are certain phases of reality, certain powers of sensation in part primitive, in part acquired, which mingled inextricably with other sensations make up the concrete whole of sense. True every phase of this whole is related to every other, but this is because they are modes only of that *presentation-continuum* in which the *unitary subject* unfolds itself. Unrelated phases there are none, but the relations are in no sense "thoughts." Out of this continuum arise both "universals" and "particulars," and to inquire into its genesis should be the most studied aim of the metaphysician or mystic. Not fussing about empty "notions," but researches as to the genesis of the experience yielding the notion is the really important affair. From having certain sequences in our monads we probably get the notion of causality, but this notion, be it observed, in no way helps us to understand *why these sequences occur as they actually do*, why, for instance, a stone when released

falls to the ground. Here the notion-juggling Hegelians fail us, as they always do when any problem of real interest crops up. The only clue is that of monadology, exploited on the lines of the "complete" method and in full accord with psychology and physical science generally. At this point, however, conscious of having unduly extended my remarks, I must bid the reader adieu, trusting that he may find ultimately idealist monadology to be as competent to answer the world-riddle as I have. Stray hints are occasionally of value, and despite the exigencies of space it may be that one or two in this paper may find a permanent lodgment in minds open to conviction.

E. DOUGLAS FAWCETT.

DEVON, ENGLAND.

MUSIC'S MOTHER-TONE AND TONAL ONOMATOPY.

PRELUDE.

OBSERVE how the whole orchestral throng clusters about her; caresses her: how the mischievous little bows catch up her apron-string and prance out with it, then come back and loll at her knee, and look up into her eyes, and whisper her name; how the clarinets seize and sound that name deeply, then scurry with it along the tone-fence, pretending that they are going to jump off, as do those orchestral big boys—the *contra-bassi*; how the 'celli-bows first give it an inflection of filial love, then utter a sigh of romantic susceptibility, as they saunter towards the tone-bridge, over which they seem ready to vault at beauty's command; how the lowing horns echo that name; how magically it makes the fiery trumpets, the phlegmatic trombones, and even those orchestral athletes—the prosaic bass-drums—as well as the chattering group of aspiring flutes and pert piccolos and cry-baby *hautboys* and quacking fagottos properly decorous in the midst of their wildest fun, the surge and swirl of which only the master's baton can hush, with its apparently unwelcome signal for taking up their respective burdens of labor and care.

This hush often makes me wish—as did that Eastern potentate, who found this topsy-turvy, seething mass of sounds so indescribably charming—to *encore* it.

* * *

Music's mother-tone is man's mother-tone; the original vowel sound, the primitive A (Ah)—the first, simplest, easiest of all vocal

utterances : the onomatopie vocable for mother. Man, to intensify its love-symbolism in verbal expression, gave it the verbo-consonantal prefix, M—Ma : and children verbally melodised and sweetened this symbolism by iteration—Mama.

Good examples of the use of Ma may be found in the simple, verbo-tonal, slumbersome lullabies of the primitive Esquimaux.

Man idealised the mother-tone in tonal speech by adding thereto tonal consonants, chosen because of their being onomatopie of his numerous mother-needs ; and, as the demands of his varied emotions for æsthetic media of musical utterance grēw, he sought for other tone-vowels, consonants, tone-combinations, tone-sequences, until these tone-language materials joined, blended with each other, took shape, coherence, symmetry, and music became his vernacular tongue.

Naturally onomatopie has had much to do with this musical evolution ; as, with its simple cries, men everywhere naturally express their feelings ; which cries, as the crying one's desire to be heeded by the listener increases in intensity ; or, as one phase of his emotion merges into another, are reduplicated, inflected, or joined to other sounds within his vocal command, in alliterative concord or otherwise, for the purpose of deepening the impression of the affection to which he is then giving vocal utterance, upon the listener ; and that in tones, phrases, strains, tone-movements, of whatsoever kind they may be, this onomatopie element must be present, if we would have the tone-language closely, correctly, intimately, satisfactorily subserve its purpose as such.

The mere mechanical reiteration of the name of the Vaishnavic god, Hari, in which the A-tone is chief, secures admission to the Vishnu's heaven.

In the early Hebrew tonal accents and indeterminate notation we find numerous onomatopie suggestions which are clearly in line with and illustrative of the originally tentative condition of the tone-language ; this notation of a flexible tonality allowing of as widely different tonal interpretations, changes, as does, verbally, the Aryan tongue, from which sprang the Sanskrit, Greek, Latin, German ; and our own copious English has more sounds than symbols. The

wonderfully intellectual Egyptians, by their use of an indeterminate notation, confessed their need for a notation other than that whose signs are of fixed notes, as well as for tonal onomatopy; and Moses doubtless obtained suggestions, through his musical culture in the Pharaonic court, which caused the Hebrews to meet the onomatopic exigencies in their song-services by their indeterminate notation, with its oral amendments, qualifications, accents, thereby rendering their music so variable, that—chameleon-like—it took the tone-color of whatever land they sojourned in,—a habit initiated by their Egyptian captivity.

Man etherealised the verbal with the tonal, artistically, and extended, when so doing, onomatopy from the spoken to the sung; causing it, naturally, to dominate the constructive art-growth and scientific evolution of music, its essence being the unobstructed semblance of sound to sense; a semblance vastly superior to that of words, because unembarrassed by verbal dross.

Read this fine verbo-onomatopic excerpt from Southey:—

" How does the water
Come down at Lodore?
Rising and leaping,
Sinking and creeping,
Dividing and gliding and sliding,
And falling and brawling and sprawling,
And bubbling and troubling and doubling,
And rushing and flushing and brushing and gushing,
And flapping and rapping and clapping and slapping,
And thumping and plumping and bumping and jumping,
And dashing and flashing and splashing and clashing,
All at once and all o'er, with a mighty uproar—
And this way the water comes down at Lodore."

Then turn to Beethoven's Pastoral Symphony: scan its scenery, hear its deep, fine-thoughted voices, all marvellously true; truer than Southey's words, or even Rembrandt's visualistic colors.

The presence and power of onomatopy in music, wherein it exceeds in importance music's other rudiments, are as self-evident as are its presence and power, as a formative principle in other lan-

guages. To it pre-eminently indeed may be accredited music's tenacious hold on man and its profound effectiveness; and to that degree in which music is onomatopoeic does it serve its lingual design, and as a medium for the utterance of sentiment. It is that principle from which that tone-form which individualises, nationalises music springs, flowers, and to which we must look for a key to the primitive, radical, individual and national characteristics of music.

The inspiration of its formative power in the construction of musical expressions is easily established by analysis thereof; particularly of those which are primitive and precede all acoustic science, and are unburthened or refined by the adornments of musical art, or the culture of those musicians who use them: they not being the composite heritage of many and diverse languages—a Babel—but the utterances of the original, primitive, virgin voice of man, as unchanged by the lapse of time as are man's five senses; these utterances evidencing the ever-present operation of their primitive impulses and of man's common imitative faculties.

They show themselves to be the tone-germs from which are evolved the endless varieties of musical composition; germs found not only in the voice of man but in the voices of the animal kingdom at large.

The mother-tone A, with the Ma, Ba, of every baby; white or black; bond or free; born of ignorant or learned parents; of the baby of all nations under the sun: this cry of lamb, kid, calf, with its feline and canine modifications, is one of those germs; one which expresses a crying desire, the immediate satisfying of which is sought.

This cry takes its start from the mother-tone A, whose musical notation is placed on the second space of the treble staff. This mother-desire being common among children, this mother-tone, with its consonants, their inflections and dynamic changes, becomes onomatopoeic; first of babyhood, then of mother-love, mother-longing, home-love, home-longing, love to others and of its cognate affections.

Observe how the composer of the melody of "The Last Rose of

Summer," or, of that of "Home, Sweet Home," does loving obeisance to the mother-tone.

Let the reader try to sing or play either of these songs, with some other tone substituted for A, if he would realise practically its vital importance in their melodic structure; and how the foster-spirit of the mother-tone extends naturally in melodic construction, by tonal transposition,—as in the melody of "Annie Laurie"; and how it pervades all tonal matter by the operation of a basic law of tonal mammalogy. Search the musical scriptures; study the phrasings of passion in operas, for evidences of the debt dramatic music owes to onomatopy; illustrations of which cannot well be produced here, excepting by the use of music-staff, clef, notation; but which, whoever is interested therein may entertain himself rarely by finding in the works of Wagner, Verdi, and other emotional geniuses. From the works of these modern composers let him go back, step by step, to the primitive, simply formed music of all peoples, and mark how—through onomatopy and its tonal affinities—this music is unified; and how, in the mother-tone and its onomatopy, however deeply imbedded, lies the secret of music's universal heart-sway. This tonal protoplast and its multitudinous progeny—their art, first empirical, then scientific—are so cadenced in the works of such composers as Beethoven and Wagner as to produce in the listener's mind pictures of their ideals etherealised to that degree which no art but music can reach.

The word-creations of Homer, Shakespeare, and Dante abound in verbal onomatopy. Yet their noble sonorities cannot be said to attain that influence over the reader or listener which the tonal masterpieces of Beethoven, Wagner, or Berlioz, effect.

As Mr. Gladstone assigns those poets chief honors for verbal onomatopy, I would cite these three composers as their worthy onomatopic brothers; the compositions of no others appearing to me to show a profounder knowledge of phonology, nor the carrying of tonal onomatopy further towards the state of an exact science. The more these tone-masters' works are studied, in an onomatopic regard, the more do these masters seem to tacitly confess their being hindered, in the use of tonal onomatopy by the imperfections in,

and limitations of, the present system of musical notation ; and to sigh for one like unto that of the Egyptians or Hebrews, in indeterminateness.

Fortunately for the modern music-lover they had none ; for where is the musical genius who could rightly interpret their unexpressed accents ?

As the composer's thoughts are too idealistic to content themselves with the expressional resources of any verbal tongue, though never so perfect ; they, being wholly divested from the earthy in conception, necessarily chafe under the restraints of this notation, in their endeavors to lead the music-lover from the phenomenal to the real.

The composer is an Orpheus, who proposes to satisfy himself with no accomplishment short of compelling earth's stocks and stones to live, move, and have their being at the sovereign command of his genius. Why did Wagner set his words to music, if not failing to find in words those æsthetic media in which music is so opulent ? And why does he exclaim—in the midst of even his tone-wealth, with Saint Paul—"except these bonds ?" Wagner reached from words to tones, as did Rossetti from words to tints, and to a perfect freedom of tonal expression ; no composer evidencing in his works more than he a desire for a fixed notation which recognises closer, nicer sound differences than does the present one ;—an enharmonic notation—with all the instruments of the orchestra constructed to produce them ; one rendering the influences of onomatopy on music freer and more powerful.

The tone-shading, onomatopic resources of the violin-class of instruments make of the orchestra, in this respect, a truer exponent of feeling than it would be otherwise ; and onomatopy ever strives to free our tone-scales from their arbitrary parcelling of tones into integers, in order to broaden and render truer the expressional powers of music for their employment in the domain of definite emotional ideas.

I find that all music, in which onomatopy dominates its phrasing ; in which the tone suits, or suggests, the voice which man instinctively gives to that sentiment which the music seeks to express,

is the truest, most effective; because it individualises the music and leads it to obey—in its construction—the common law of humanity, as betokened by the onomatopie mother-tone as well as by man's activity in all the fine and inventive arts. Such music as this manifestly cannot be made a vehicle for diametrically opposed feelings; and clearly is, therefore, of a higher excellence than that which—like a cab—may carry anybody. Such music as this also evidences the importance and power of onomatopie as a musical rudiment, and its dominance over the mother-tone and other single sounds in the musical alphabet, sound-combinations and sequences produced by the evolution of music as a language, begun with the primitive mother-tone utterance, followed by all those tonal developments which man's changing feelings require, as fit tokens for those feelings, and of those passions which call them into vocal utterance; through whose operation, under the guidance of a law like that of Darwin, all tonality may have its genesis, growth, and present stature.

This tonal dominance of onomatopie doubtless is due to its having preceded and being above tonal art; to its being the direct, natural, and, therefore, truest symbolism of feeling; to its being the primeval basis of all tonality; the fundamental principle in which all tonal effects agree; and, to establish which, its advocate has but to divest the tone-language from the shaping, smoothening, sweetening, refining, to which the musical culture of centuries has subjected it, and reveal therein its supremacy; the dominance of the principle of imitation, of an imitation which reaches beyond analogy, beyond vague, shadowy suggestiveness; one which is the essence, soul of that which is expressed through its operation; one showing music to be not unreal, fanciful tone-painting, abounding in the wanton reds of a Rubens, or splotched yellows of a Turner, but a living speech; a mother-tongue, seized of, quickened by that soul of which it is the material, subordinate body, and which uses it merely as such.

In music's present condition, however, ample evidence may be found to establish the theory of onomatopie as a *linguo-formative* principle, if to do so be desired. Tonal onomatopie's status clearly

being self-demonstrable, I think we may safely assign such tonal effects as we cannot, under the present conclusions of musical science, trace to its influence—for example, Wagner's dream-sounds—to the realm of unconscious onomatopy; the onomatopy of musical ideas of which we are seized, without being conscious thereof; yet which take an independent coincidence and consonance with—and color—our conscious ideas when we compose music; as well as their influences on the listener's heart and mind when he takes a similar conscious, or unconscious, cognisance of the onomatopic element of a musical strain, and of its own definite, fixed, uniform æsthetic impression; its peculiar expressional significance and objective value.

As a device for ordinary tone-analysis it would seem convenient to divide all tone-elements into two classes: the onomatopic, or psychic, the tone-soul;—and the unonomatopic, the tone-body; and to let this division be used when examining the genetic processes of tonality, and the uses of the tone-language; it being qualified by the patent fact that each of these tonal parts necessarily partakes, to a certain degree, of the peculiar properties of the other; and by the innate truth that neither part can any more be separated from the other and live here as an independent entity than can man's soul and body.

On passing from tone-genesis to tone-art, onomatopy surely is a substantial helper in solving the relations of tone-forms, tone-phrases and expressions to each other, and in guiding the student to their causes; demonstrating, as it does, the tonal truism that their mutual resemblances are due to their common inheritance; their differences to their respective environments. It is, furthermore, a valuable aid for him who would leave speculative hypothesis and experimentally seek for an exact, demonstrable basis for explicative musical science and scientific musical art, through its abundant and valuable data. For, in a word, onomatopy demonstrates the synthesis of man's heart with man's mind. And he who seeks for scientific exactness in every onomatopic datum doubtless will bear in mind the fact that there is ambiguity even in words—Dante's words; and that if critics wrangle over the meaning of

certain musical movements, they have ample excuse for so doing in literary disputes ; and for mutual charity in their onomatopie investigations, especially when seeking to reconcile onomatopy with music-form theories ; chiefly with that of the coining of form into music *ab extra*, or with that which assumes a strict equivalence of music-form with pictorial form ; with the inevitable inference that it imitates an existing prototype,—a prototype easily traceable through the most abstract conceptions to an onomatopie germ expressive of an emotion ; the patent weakness in such an equivalence lying in the truth that music-form gets closer to its prototype than picturing it ; that it voices, becomes its prototype ; is very thought of its very thought.

A safe conclusion to reach in the premises, touching the form-element, would be this : Music-form is the imitative instinct ruled by the solvent, selective, constructive mind.

* * *

The acceptance of this conclusion makes easy the belief that music's origin is in feeling, and that, therefore, music is not an art in which form is a mere mechanism to produce emotion ; but that, contrariwise, it is an art in which form is produced by emotion, under the discipline of the solvent, selective, constructive mind.

Practical onomatopy, with its far-reaching forces, is, in modern musical composition, a double-edged, exceeding sharp tonal sword ; one to be wielded only by the steady, cunning hand of genius. A facile task is it for a composer to carry such a means for æsthetic expression to a degree of stilted, ludicrous mannerism ; to so burden, bungle, and technically pervert its symbolism as to unmusic music and reduce it to the sound-chaos of a brute-thronged barn-yard, in which a dog, or cat, ordinarily quick to distinguish a human voice, might go mad in its endeavor to recognise a tone having any human mind back of it. Notwithstanding this quality of onomatopy its study shows that in its tones, tone-combinations, tone-sequences, dwell the æsthetic media of all emotions which are proper tone-art subjects. The use of these media comes intuitively to the tone-genius, because they are the heart, the inner truth, the life of his

mother-tone and tongue. He idealises, etherealises them, and the metaphysical, high art-results captivate, chasten, elevate us; fill our old world-worn, world-wise souls with the purity of infant-life and of that melody which men first syllabled with the mother-tone A.

C. CROZAT CONVERSE.

HIGHWOOD, N. J.

THE LATE PROFESSOR ROMANES'S THOUGHTS ON RELIGION.

ALL THE publications of the Open Court Publishing Company, purely theoretical though they may appear to be, are brought out with a very practical end in view, which is nothing less than the reconstruction of religion upon the broad basis of modern science. When we undertake to bring out scientific works, such as Ribot's psychological inquiries, Max Müller's expositions of the nature of language and of thought, Ernst Mach's history of mechanics and his popular lectures on the methods of scientific research, we do so because we trust that the spread of sound science is the best and most effective propaganda of true religion. We acquired from Prof. George John Romanes the right of publishing the American edition of his book, *Darwin and After Darwin*, because we recognise in the doctrine of evolution one of the most important and fundamental religious truths, upon the basis of which the old traditional dogmas will have to be revised and radically remodelled; and we have just now brought out the American edition of the same scientist's posthumous *Thoughts on Religion*. It is this latter book to which the present article is devoted, for it seems necessary to explain why we accept for publication a book which in many important points differs from our own solution of the religious problem.

In our opinion, science and religion are not two separate spheres which must be kept apart, lest the one should interfere with the other; but, on the contrary, both form integral parts of man's spiritual being and are closely interwoven as the web and woof of our souls. Science is the search for truth, including the

results of the search ; it is the best recognition of the truth according to the most accurate and painstaking methods at our command ; and religion is the endeavor to lead a life in agreement with the truth. What is religion but truth in its moral bearings upon practical life !

In opposition to this standpoint the *Thoughts on Religion* by Professor Romanes are antiscientific and agnostic, indeed, they stand in certain respects so much in contrast to the labor of his life, as to appear a disavowal of his former position.

While our religious convictions are quite definite and outspoken we do not propound them dogmatically. We simply submit them to the world for consideration ; we solicit criticism from all quarters, because we trust that they can stand the severest strictures. However, supposing they could be proved to be erroneous, we shall not hesitate to publicly confess our errors ; for it is not our aim to propagate our views because they are ours, but because we believe that they are true. If it be right that we must in religious questions sacrifice our intellect and cease thinking, let the truth prevail.

When the doctrine of evolution first dawned upon Romanes, it came to him, not as a religious idea, but as a revolutionary doctrine, which was slowly but radically destroying the very basis of his most sacred belief ; and in order to understand the struggles which at that time distracted the mind of the young scientist, we ought to bear in mind that he was in his inmost nature not only deeply religious, but even uncommonly reverent and pious. Judging from his essay on Prayer, which he wrote when still a youth, in 1873, and by which he gained the Burney Prize at Cambridge, he was possessed of a childlike trust in the Lord, his Creator and Heavenly Father, whom he regarded as governing the world by general laws. Would a youth so settled in his convictions give up his faith when confronted with scientific conceptions irreconcilable with the errors of his traditional religion ? How could he help it ? Science is not of human make ; science is the superhuman power of the silent voice of the Holy Spirit, who reveals himself to

mankind in an accumulative revelation, and no one can withdraw himself from its irresistible influence.

Romanes had thoroughly imbibed the rigid definitions of the traditional dogmatism. In order to substantiate the so-called orthodox conception of Christianity our ecclesiastical instructors have gotten into the habit of telling us again and again that there is no religion save such as is theistic, and that there is no theism, save such as is a belief in a personal God, and a personal God means a distinct individual being with an ego-consciousness like that found in man, only on an infinitely higher plane—a view which we call anthropotheism. Accepting explanations of religion, such as these, it was natural that Romanes, as soon as he became convinced of the errors of his narrow church-theism, should fall a prey to a desolate scepticism, and already in 1876, if not sooner,¹ he wrote a book entitled *A Candid Examination of Theism by Physicus*, which analyses the crude conception of the traditional God-idea, and finds it wanting.

We quote the following passage from the book, which is sufficient evidence of the author's sincerity:

"And now, in conclusion, I feel it is desirable to state that any antecedent bias with regard to Theism which I individually possess is unquestionably on the side of traditional beliefs. It is therefore with the utmost sorrow that I find myself compelled to accept the conclusions here worked out; and nothing would have induced me to publish them, save the strength of my conviction that it is the duty of every member of society to give his fellows the benefit of his labors for whatever they may be worth. Just as I am confident that truth must in the end be the most profitable for the race, so I am persuaded that every individual endeavor if unbiassed and sincere, ought without hesitation to be made the common property of all men, no matter in what direction the results of its promulgation may appear to tend. And so far as the ruination of individual happiness is concerned, no one can have a more lively perception than myself of the possibly disastrous tendency of my work. So far as I am individually concerned, the result of this analysis has been to show that, whether I regard the problem of Theism on the lower plane of strictly relative probability, or on the higher plane of purely formal considerations, it equally becomes my obvious duty to stifle all belief of the kind which I conceive to be the noblest, and to discipline my intellect with regard to this matter into an attitude of the purest scepticism. And forasmuch as I am far from being able to agree

¹ The book appeared in 1878 (at Trübner's), and we read in the preface that it was written *several* years before, but had been left unpublished.

with those who affirm that the twilight doctrine of the 'new faith' is a desirable substitute for the waning splendor of 'the old,' I am not ashamed to confess that with this virtual negation of God the universe to me has lost its soul of loveliness; and although from henceforth the precept to 'work while it is day' will doubtless but gain an intensified force from the terribly intensified meaning of the words that 'the night cometh when no man can work,' yet when at times I think, as think at times I must, of the appalling contrast between the hallowed glory of that creed which once was mine, and the lonely mystery of existence as now I find it,—at such times I shall ever feel it impossible to avoid the sharpest pang of which my nature is susceptible. For whether it be due to my intelligence not being sufficiently advanced to meet the requirements of the age, or whether it be due to the memory of those sacred associations which to me at least were the sweetest that life has given, I cannot but feel that for me, and for others who think as I do, there is a dreadful truth in those words of Hamilton,—Philosophy having become a meditation, not merely of death, but of annihilation, the precept *know thyself* has become transformed into the terrific oracle to Œdipus: 'Mayest thou ne'er know the truth of what thou art.' "

While Romanes pursued his scientific work unswervingly, completing works on *The Mental Evolution in Man*, *The Mental Evolution in Animals* and *Animal Intelligence*, and beginning his *Darwin and After Darwin*; he wrote several essays bearing on religion. They are:

1. "Mind and Motion." A lecture, published in *The Contemporary Review*, July, 1885, p. 74.
2. "The World as an Eject," published in *The Contemporary Review* in 1886, p. 44.
3. "The Evidence of Design in Nature," a paper read before the Aristotelian Society in 1889, and published in its proceedings as a contribution to a Symposium.
4. Three articles on the "Influence of Science Upon Religion," written in 1889, but remaining unpublished for unknown reasons.

In these essays Professor Romanes takes an unequivocal stand on the ground of monism, yet when he comes to the question of theism he assumes an attitude of agnosticism which does not venture to decide the problem but "leaves a clear field of choice between theism and atheism." The secret reason of his position which probably was hidden from his own mind was in our opinion this: he felt instinctively that there was some truth in theism, yet he could not discover by his reasoning powers what it was. He saw the errors

of the narrow church-theism, but he did not venture to broaden his idea of God so as to conform it to his better scientific insight.

Professor Romanes in 1892 sent us a copy of his article "The World as an Eject," suggesting its republication by The Open Court Publishing Company, which for reasons too long to enumerate we had to refuse. Professor Romanes's world-conception coincided with the monism of *The Monist* in all important points except in one—his agnostic reservation of leaving the question of theism undecided. I could not republish his essay, but I took the occasion to discuss our differences in an editorial article (which appeared in Vol. III, No. 2, pp. 249-257 of *The Monist*) hoping that he would either refute my strictures and fortify his arguments or alter his position which appeared to me half-hearted and untenable, and adopt a more scientific God-conception. At that time Professor Romanes's health broke down and I did not consider it proper to urge a reply from him before he would have thoroughly recovered. He went in the winter of 1892-1893 to Madeira, and it is probable that he never read what I had to say about his agnostic view of theism.

The agnostic reserve of Professor Romanes's position might have easily appeared to his readers as an unwillingness to decide a dilemma, which, whatever horn he chose, could only implicate him in troubles of various kinds; but the fact is that he was sorely perplexed in his own mind. On the religious problem all his sympathies were enlisted against his rational faculties, and he saw no other hope for the defence of the faith which he so dearly but vainly longed for, than by denying his rational faculties the right to have anything to say in the matter, and this, his attitude, he called, in distinction to the Spencerian agnosticism, "pure-agnosticism."

Between the lines of Romanes's *Thoughts on Religion* we can see the distress of his soul. What a poor evidence is agnosticism! It is like a straw to which a drowning man desperately but vainly clings. For it goes without saying that agnosticism of every color is equally favorable to dogmatic Christianity to Mohammedanism, Brahmanism, theosophy, and mysticism of any description, as to Freethought and Nihilism.

With such sentiments Professor Romanes pondered in the last

year of his life on the problems of theism, faith, free will, the existence and origin of evil, causation and creation, regeneration, revelation, the miracles, Christian dogmas, such as the trinity, and incarnation, the fall of Adam, and Christian demonology. The notes which he wrote down on these topics a few months before his death were originally intended to counteract or offset in a measure, to his own or other people's satisfaction, the propositions contained in the *Candid Examination of Theism by Physicus*. He expected to work out a book on the subject which should appear under the title *A Candid Examination of Religion by Metaphysicus*, for he had found in the metaphysical x the sole place of safety for the God of Christianity. After his death the notes were handed to the Rev. Charles Gore, Canon of Westminster and a friend of the deceased scientist, who was to do with them what he thought best. Canon Gore has decided upon their publication together with other materials and his own editorial comments, and the book lies now before us under the title "*Thoughts on Religion*, by the late George John Romanes, Edited by Charles Gore, M. A., Canon of Westminster."

The book contains :

1. Two essays by Romanes on the "Influence of Science Upon Religion," written in 1891, the third essay being omitted, because, as the editor declares, "Romanes's views on the relation between science and faith in revealed religion are better and more maturely expressed in the notes" (pp. 37-88).
2. The Notes for a work on *A Candid Examination of Religion* (pp. 91-183).
3. Editorial Comments. Both parts open with editorial prefaces (pp. 5-33, p. 105, and pp. 91-96), and the whole book closes with a "Note by the Editor" (p. 184).

Mr. Gore claims that "both Essays and Notes represent the same tendency of a mind from a position of unbelief in the Christian revelation toward one of belief in it" (p. 6); and although Romanes's conviction cannot be described as "a position of settled orthodoxy," although he did not recover "the activity or habit of faith," we are told (on p. 184) that he yet "returned before his death to that full, deliberate communion with the Church of Jesus Christ

which he had for so many years been conscientiously compelled to forego."

There are people who think that there is no salvation except in the Church. For their benefit be it stated that such a man as Professor Romanes was in the darkest days of his boldest scepticism a better Christian than many a minister and preacher, who finds no difficulty in avowing allegiance to the thirty-nine articles of the Anglican Church.

* * *

We attach to the book a great importance, for it proves the depth of Romanes's religious sentiment. There may be a doubt whether it was wise and just to publish the notes—just toward the sacred memory of the deceased; and we feel sure that many friends of the late Professor Romanes will regret the appearance of the booklet, for the notes are quite unfinished and incoherent. Indeed, the looseness of argumentation indicates that their author, when he penned them, was no longer at his best. Nevertheless, we believe Canon Gore was right in not withholding them from the world, because Romanes was great enough even for his weaker productions to command a general interest, the more so as they throw a searchlight into the most secret recesses of his innermost soul; and it is of interest to us to know not only how a man like Romanes argued but also what he longed for and on what side his sympathies were most strongly enlisted. Taking the notes as they stand, and bearing in mind that their author's life was cut short before he could revise them and work his way out from the narrowness of agnosticism into a clear comprehension of the glory of true religion, we take them as witnesses of Romanes's deep love of God, whom he still harbored in his heart after his mind through scientific investigations had lost belief in his existence.

We can now understand what an abyss of desolation lies in the question which Romanes uttered in the concluding chapter, page 418, of the first volume of *Darwin and After Darwin*, "Where is now thy God?" And his answer bids us be resigned. He says: "And when the cry of Reason pierces the heart of Faith, it remains for Faith to answer now as she has always answered before—

and answered with that trust which is at once her beauty and her life,—Verily, thou art a God that hidest thyself.”

Concerning Professor Romanes's progress from a position of unbelief toward one of belief, we are unable to discover any evidence of great consequence. For the agnostic position as the sole refuge for believers is already indicated in the *Candid Examination of Theism*. Even here Romanes says :

“Although the latter deductions have clearly shown the existence of Deity to be superfluous in a scientific sense, the formal considerations in question have no less clearly opened up beyond the sphere of science a possible *locus* for the existence of Deity; so that if there are any facts supplied by experience for which the atheistic deductions appear insufficient to account, we are still free to account for them in a relative sense by the hypothesis of Theism. And, it may be urged, we do find such an unexplained residuum in the correlation of general laws in the production of cosmic harmony.”

On the other hand, instead of retracting his opinions in the Notes, Romanes expressly retained them, only proposing several important modifications and limitations. While he feels that “further thought has enabled” him “to detect serious errors or rather oversights,” in his book he still thinks “that from the premises there laid down the conclusions result in due logical sequence.” He continues, “as a matter of mere ratiocination, I am not likely ever to detect any serious flaws, especially as this has not been done by anybody else during the many years of its existence.”

Romanes finds two faults with his former work : undue confidence in merely syllogistic conclusions, and a lack of care in examining the foundations of his criticism. He says :

“The metaphysics of Christianity may be all false in fact, and yet the spirit of Christianity may be true in substance—i. e. it may be the highest ‘good gift from above’ as yet given to man.”

How true ! But granted that it is true, should we not rouse ourselves to investigate what is the spirit of Christianity so that we may do away with its false metaphysics? Professor Romanes turns for help at the wrong door. Agnosticism, even Professor Romanes's “pure agnosticism,” will never make us take heed and beware of the leaven of the Pharisees and of the Sadducees ; and agnosticism,

if we are willing to believe, makes us credulous, while if we are unwilling to believe, makes us indifferent, for what is the use of our troubles if the truth lies in some superscientific field, where we can never hope to approach it.

Passing by the comments on Adam and the Fall, the blindness of reason with regard to the doctrines of the Incarnation and the Trinity and similar utterances,—topics the serious discussion of which we should not expect from the author of *Darwin and After Darwin*,—we think that the weakest parts of Professor Romanes's arguments are his contradictory applications of his principle of pure agnosticism. In one place he complains about "*professed*" agnostics who refused to go to a famous spiritualist, or to test the art of a mind-reader, and he says of them that they violated their philosophy by their conduct (p. 109), yet when dogmatic questions appear, such as whether Jesus was the son of God, he argues that we are, *quod* pure agnostics, logically forbidden to touch them (p. 106 and *passim*).

After all, Professor Romanes makes less use of his agnosticism than appears consistent and attempts a reconciliation between religion and science. He says :

"I intend to take science and religion in their present highly developed states as such and show that on a *systematic examination of the latter by the methods of the former*,¹ the 'conflict' between the two may be not merely 'reconciled' as regards the highest generalities of each, but entirely abolished in all matters of detail which can be regarded as of any great importance."

The principle of deciding the conflict between science and religion by "a systematic examination of the latter by the methods of the former" is the fundamental contention of that aspiration which we have defined as the "Religion of Science." In full agreement with the maxim of the Religion of Science, Romanes insists upon theists abandoning all the assumptions of which they have been guilty, saying :

"True religion is indeed learning her lesson that something is wrong in her method of fighting, and many of her soldiers are now waking up to the fact that it is here that her error lies—as in past times they woke up to see the error of deny-

¹ Italics are ours.

ing the movement of the earth, the antiquity of the earth, the origin of species by evolution, etc."

The only possible condition to fighting, says Romanes, lies in the distinction between the natural and the supernatural—a distinction that has always by both sides been regarded as sound (p. 121). He now proposes to rescind the boundary line that separates the supernatural from the natural and says: "Once grant that the supernatural is 'natural' and all possible ground of dispute is removed."¹

This is the reconciliation between religion and science which we propose, and it may be formulated in analogy with Christ's words: "Render unto Science the things that are Science's!"

* * *

There are many more things that ought to be said, but they are of less importance, and we can only lightly touch upon some of them in a few disconnected remarks.

We believe that Romanes's distinction between Huxley's and Spencer's agnosticism is neither clear nor correct (p. 108). Professor Huxley's agnosticism is not what Romanes defines it, viz., "an attitude of reasoned ignorance touching everything that lies beyond the sphere of sense-perception." Mathematics lies beyond the sphere of sense-perception, yet Huxley does not extend his agnosticism to mathematical methods or conclusions.

The fact that St. Paul's epistles are regarded by the critics as genuine is mentioned three times (pp. 155, 168, 169), and it is claimed that this is "enough to show the belief of Christ's contemporaries" (p. 169). Indeed! But what of it? Have we not sufficient evidence of the belief of our own contemporaries in the various Christs who have risen among us? Schweinfurth and Teed are living in our midst, and the authenticity of their publications cannot

¹ Compare on the supernatural such passages in *The Monist* editorials as Vol. V, No. 1, p. 99: "We deny the existence of the supernatural in a dualistic sense; but suppose we call such higher features of nature as appear in man's ethical aspirations hyperphysical or supernatural because they rise above the lower and purely physical elements of the universe, we must confess that the supernatural lies hidden in the natural and is destined to grow from it according to the cosmic law of existence."

be doubted. The important question is not whether or no Paul wrote his epistles, but whether the ethics of the epistles is good or bad, and, granting that Paul said many noble things, I yet wish to see the orthodox clergyman who would venture to defend Paul's low, not to say vulgar, conception of marriage!¹

Romanes speaks of "some superadded faculties of our mind," explaining them in one place as "the heart and the will," as the "religious instinct," and other moral sentiments, and also as "spiritual intuition," or an "organ of spiritual discernment." He glories in the "infinitude of mystery sufficient to satisfy the most exacting mystic." We say, that the "superadded faculties," which are such as man's conscience, his religious aspirations and moral ideals, do not lie without the pale of scientific investigation. On the contrary, the better we understand their nature, the greater is their chance of nobler development and purification.

Such phrases as "first cause" and "infinite mind," which are word-combinations without sense, abound unduly in the notes and help not a little to increase the difficulties which present themselves to the mind of Romanes and which have become sufficiently bewildering through the sensitiveness of his religious nature.²

Romanes gave a great deal of his thought to the problem of the existence of pain in the world. How is it possible that God, if he be good, can allow his creatures to be hopelessly exposed to "hideously cruel" and terrible sufferings? Romanes says in his second essay on "The Influence of Science Upon Religion," after

¹ "The sole motive for marriage which St. Paul proposes is, 'It is better to marry than to burn.' The holiest instincts that would induce men and women to join their fates in a sacred alliance are utterly ignored. Nothing is said of the mutual sympathy and friendship that bind soul to soul much more closely than sexual appetites. No consideration is taken of the children to be born, and the very lowest desires alone are given as an *excuse* for entering into the state of matrimony, the holiness of which St. Paul does not understand. His view of marriage proves that he had no right conception of the ethics of human sex-relations. We admire St. Paul in many respects, but we must say that his view of marriage is un-Christian; it is unworthy of his sacred office as an apostle; it is a blemish in our Bible."—*Science a Religious Revelation*, pp. 11–12.

² For an exposition of the errors which lie concealed in the phrase "first cause," see *Primer of Philosophy*, pp. 146–147, and *Fundamental Problems*, p. 88 et seq. As to "infinite mind," see *Homilies of Science*, p. 102 et seq.

speaking of the agonies of a rabbit panting in the iron jaws of a spring trap :

"What are we to think of a Being who, with yet higher faculties of thought and knowledge, and with an unlimited choice of means to secure His ends, has contrived untold thousands of mechanisms no less diabolical ? In short, so far as Nature can teach us, or 'observation can extend,' it does appear that the scheme, if it is a scheme, is the product of a Mind which differs from the more highly evolved type of human mind in that it is immensely more intellectual without being nearly so moral."

The problem of the existence of pain in the world is an unsolvable mystery on the hypothesis of the traditional theism, and no theory of "probation" can satisfactorily explain the difficulty. But Romanes declares that, after all, we are not bound to adopt the idea of a "carpenter-God," as Mr. S. Alexander calls the anthropomorphic notion of a Creator (see p. 94), which implies that the world-order is "a scheme."

As to God's responsibility for pain, we should bear in mind that one of the most obvious features of anthropomorphism in the God-idea is the attribute of "moral goodness." In the same way that God is not an individual being, that he is not a huge ego or person like ourselves, but a superpersonal omnipresence, so he is neither moral, nor good, nor ethical ; for God is the standard of goodness ; he is the norm, conformity to which is the condition of ethics ; he is the ultimate authority of all moral conduct. He is neither moral nor immoral, but unmoral, or let us say "supra-moral." If God were the carpenter of the world, he would be responsible for its laws and arrangements, including all the cruelties implied by them, and he could not escape the condemnation of immorality.

Romanes has found the right answer when he says :

"For aught that we can tell to the contrary, it may be quite as 'anthropomorphic' a notion to attribute morality to God as it would be to attribute those capacities for sensuous enjoyment with which the Greeks endowed their divinities. The Deity may be as high above the one as the other—or rather perhaps we may say as much external to the one as to the other. Without being supra-moral, and still less immoral, He may be un-moral : our ideas of morality may have no meaning as applied to Him."

Such was Romanes's pious disposition of mind, that, if it ever

had been possible to defend the old traditional dogmatism before the tribunal of reason, he would have done so, and we can repeat the quotation from Virgil, which D. F. Strauss applied to Schleiermacher, without hesitation of Romanes :

"Si Pergamum dextra defendi posset
Hac certe defensa fuisset !"

* * *

There is one more point to be mentioned. Professor Romanes adopted the idea so often proclaimed in the pulpit, that "no one can 'believe' in God, or *a fortiori* in Christ, without also a severe effort of will," and he adds :

"Yet the desire is not strong enough to sustain the will in perpetual action, so as to make the continual sacrifices which Christianity entails. Perhaps the hardest of these sacrifices to an intelligent man is that of his own intellect. At least I am certain that this is so in my own case.

Romanes rummages his brain for arguments to silence the voice of reason. He says (p. 167):

"The force of Butler's argument about our being incompetent judges is being more and more increased.

"The unbiassed answer of pure agnosticism ought reasonably to be, in the words of John Hunter, 'Do not think ; try.'"

And he tried ! What tortures must this man have suffered in his eagerness not to think but to believe ! His religious struggles may have been the physical cause of his premature death ; for distraction of mind is more injurious than overwork. And after all he was anxious to attempt the impossible. We read on pp. 132-133 :

"Yet I cannot bring myself so much as to make a venture in the direction of faith. For instance, regarded from one point of view it seems reasonable enough that Christianity should have enjoined the *doing* of the doctrine as a necessary condition to ascertaining (i. e. 'believing') its truth. But from another, and my more habitual point of view, it seems almost an affront to reason to make any such 'fool's experiment'—just as to some scientific men it seems absurd and childish to expect them to investigate the 'superstitious' follies of modern spiritualism. Even the simplest act of will in regard to religion—that of prayer—has not been performed by me for at least a quarter of a century, simply because it has seemed so impossi-

ble to pray, as it were, hypothetically, that much as I have always desired to be able to pray, I cannot will the attempt."¹

Is it not a shame on our Church dogmatism to let a man like Romanes, an intellectual giant torture himself, on the rack, in efforts to conform to the religion which he had been taught to love with all the fervor of his soul?² Professor Romanes imagined that God requested from him the sacrifice of his intellect, and what was he not willing to do for God's sake! As Abraham went out to sacrifice his only son Isaac, so Romanes seriously tried to slaughter his reason on the altar of faith.

My blood begins to boil at the thought, for I remember my own experiences and the dark hours of despair in which I had, against my own will, lost my God and my religion, and felt all the miseries of hell. However willing I was to sacrifice my vanity, my egotism, my pride, my pleasures and joys, my self and my fondest hopes, I was yet unable to surrender my better knowledge, and only after many hours of sore trial did I work my way out again into the glorious liberty of the children of God. I came to the conclusion that no such sacrifice is expected of us as a surrender of our intellect; for our intellect is but the reflexion of God's nature in our soul. Man's reason is the light of his life; it is a product of that world-logos which science traces in all natural laws, and it is the seal of man's divinity which constitutes his similarity to God.

¹ Kant condemns "the *prosopopæia*," or face-making, of "hypothetical" prayer as hypocrisy, and says: "The consequence of this is that he who has made great moral progress ceases to pray, for honesty is one of his principal maxims. And further, that those whom one surprises in prayer are ashamed of themselves."

² How true is what Mach says of the conflict between science and theology! In his *Science of Mechanics*, p. 446, we read: "It would be a great mistake to suppose that the phrase 'warfare of science' is a correct description of its general historic attitude toward religion, that the only repression of intellectual development has come from priests, and that if their hands had been held off, growing science would have shot up with stupendous velocity. No doubt, external opposition did have to be fought; and the battle with it was no child's play. But investigators have had another struggle on their hands, and by no means an easy one, the struggle with their own preconceived ideas." Professor Romanes is the most modern instance of the severity of the conflict which often distracts the soul of a scientist. Oh, what a noble mind was here o'erthrown—and by what? By his devotion to dogmas, the spirit of which he felt to be true, and the allegorical garb of which he knew to be full of errors.

What is the lesson of Romanes's *Thoughts on Religion*?

Romanes's posthumous work is a *mene tekel* which reminds us of the importance of the religious problem. We cannot and must not leave it unsettled in worldly indifference. We must attend to it and investigate it bravely and conscientiously. We can no longer denounce reason or silence our intellectual needs, for it is God himself who speaks in the voice of reason; and the progress of science is his most glorious revelation which ecclesiasticism cannot smother. Indeed, the suppression of reason is the sin against the Holy Ghost which cannot be forgiven but will inevitably lead, if persisted in, to eternal perdition.

The sad case of Professor Romanes's religious struggles reminds us of the significant words of the late Field-Marshal von Moltke who, with reference to dogmatic religion, says in the posthumous, deeply religious "Thoughts of Comfort," which contain his confession of faith: "I am afraid that the zealot in the pulpit, who will persuade where he cannot convince, preaches Christians out of the church."

Our church Christianity is not as yet free from paganism. By paganism we understand a belief in the letter of parables or allegorical dogmas to the detriment of their spirit; and tradition and habit combine to make our theologians worship the letter that killeth. A one-sided training warps their judgment. Their notions of God, the sacraments, miracles, inspiration, prayer, Christ's sonship, and other religious ideas are, as a rule, more pagan than they themselves are aware of. The constitutions of most churches are so formulated as to make a belief in the literal meaning of symbols the test of orthodoxy, and Christians are urged to set their trust upon myths. For the higher education of the clergy we would propose, therefore, that every theologian should study at least one of the natural sciences or mathematics. It would be the best way, perhaps the only way, to teach them the sternness of truth and to dispel their anthropomorphic notions of God.

The narrowness of ecclesiasticism has estranged many noble minds from religion. Let our clergy see to it that room be made for intellectuality in our churches; and the light of science will purify

the dark corners in which the superstitions of past ages still continue to exercise their baneful influence.

Romanes has much to say of the inner voice, intuition, and inspiration, but whatever form the subjective instincts of our religious nature may take, they possess merely preliminary power of decision and have no authority in comparison with objectively demonstrable truth. The verdict of conscience is very valuable, because it frequently reveals deep moral truth in a prophet's vision: yet is it neither absolute nor reliable, for it must seek its ratification before the tribunal of science. So far as human evolution has gone, science alone is possessed of that catholicity which is so sorely needed in religion.

There is no peace of soul for him whose religion has not passed through the furnace of scientific criticism, where it is cleansed of all the slag and dross of paganism. If God ever spoke to man, science is the fiery bush; and if there is any light by which man can hope to illumine his path so as to make firm steps, it is the light of science. Let us, therefore, make religion scientific and science religious. Let us, on the one hand, imbue religion with the spirit of science, with its rigorous criticism, strict exactness, and stern devotion to truth; and on the other hand, let us open our eyes to the moral and religious importance of the results of scientific inquiry. The ultimate aim of science is to reveal to man the religion of truth.

Let the light of science illumine both our minds and our sentiments; for science is holy, and the light of science is the dwelling-place of God.

EDITOR.

THE SIGNIFICANCE OF MUSIC.

THE philosophy of music is a much neglected field, although it is both important and interesting. The probable reason is that philosophers are rarely musicians, and few musicians are philosophers. Philosophers, as a rule, ignore music altogether, as if they had no time for inquiring into its nature, or as if music were of too little consequence to receive a place in the economy of their system. Musicians, on the other hand, speak of their art with enthusiasm, and, as a rule, fail to explain the real problem that it presents. Their reflexions, however, constitute an important material for the investigator who would attempt to sound the problem in its full depth, both in its physical conditions as investigated by Helmholtz, and in its æsthetic aspirations so ably discussed by Hanslick and Wollascheck.

Mr. C. Crozat Converse is well known in the musical world not only as a musician of high standing but also as an author and a judge of musical performance. He is the composer of several orchestral works which have been performed by Gilmore in Boston, Thomas in Chicago, and Seidl in New York. His reputation alone entitles him to a hearing and we take pleasure in presenting to our readers an article from his pen, although we are not prepared to accept his theories of the mother-tone A and the all-importance of onomatopy. We are reluctant to speak on the subject for we feel we are trespassing on foreign ground, and confess that Mr. Converse in all matters musical is unquestionably our superior. With all due deference to the value of the propositions made by a master musician, it may not be amiss to present some suggestions of our own—a boldness in extenuation of which we can only say that

our remarks come from one whose inability as a practical musician is atoned for by a passionate love of music.

About a century ago a prophet arose in the person of Abbé Vogler, who promised to reveal the secret of music, which was regarded as a universal language, as painting in sounds, as liquified architecture, or as an imitation of nature in its tenderest sentiments. Abbé Vogler, son of a violin-maker, had imbibed the elements of music almost in babyhood and played several instruments, especially the violin and the organ, to perfection. An inventor of mechanical improvements of musical instruments, a composer, a brilliant virtuoso, and a man of broad education, he seemed to embody all the essentials that entitled him to speak on the subject. He travelled about Europe and gave concerts for which he had programmes printed that contained explanations of his music. It was delightful for the audience, for it was music made easy even for unmusical people. His auditors read the explanatory notes during the performance and everybody knew what it meant. The universal language so difficult to understand was interpreted and Abbé Vogler's method met with unprecedented success, especially in the fashionable circles of the royal courts. He was honored as never composer had been honored before, and even in poetry his name has been immortalised. He found his Homer in Browning.¹

And yet Abbé Vogler has been forgotten and his method is abandoned. The reason is that it is wrong. Music is no imitation of nature; it is no language either particular or universal; it is no painting, no liquified architecture; nor is architecture frozen music. Music is a constructive art, the elementary materials of which are very simple, and the attempt to make it representative of nature, as we perceive it with our senses, is a by-path which leads us astray.

Music is among the arts what arithmetic is among the sciences: as arithmetic is among all formal sciences the most purely formal science, so music is among all arts the most abstract art. Music consists in numerical relations. There is no music but can be expressed in numbers.

¹ See Browning's well-known poem "Abt Vogler."

I do not intend here to trace out the analogies between music among the arts and arithmetic among the sciences, but it seems to me that the same difficulties beset the philosophical explanations of both, and that the same causes have prevented philosophers from seeing the simple truth and expressing it in simple terms. There are in music two parties, the advocates of the onomatopoetic style and the believers in pure music; there are the romantic and the classic schools, opposed to each other, just as are the empiricists and apriorists in the philosophy of the formal sciences, and peace can be made between the two in somewhat the same way as we have attempted to do in the last case by pointing out where in experience the roots of the *a priori* lie buried.¹

The sciences are limited to fewer and ever fewer thinkers according to the degree of their abstractness, but among the arts, the more abstract an art is the more generally it is appreciated. Music, the most abstract art, may claim universality, for even inanimate things are affected by it, as we may see when repeating Chladni's experiments with sand-covered glass plates. The effect of music on man, accordingly, is quite complex and it is also very diversified in different individuals. It may penetrate only the physical and physiological constitution in some people; in most it reaches the psychological, but only in a few the intellectual plane of their nature.

The basis of music is rhythm, which is a regularly accented progress in time. No music is possible without rhythm. The loss of rhythm would render the most euphonious sounds or tones unmusical. Birds' music is not music in the proper sense of the word, and the introduction of a piping nightingale or other chirping songsters, in an orchestra, is an allowable transgression, not less so than for instance the whistle of a steam-engine and the tolling of bells in a *polpourri*, popular during the first exhibition of Paris, and which, if I am not mistaken, was called "All Around the World."

The historical beginning of music among savages is the clapping of hands, the stamping of feet, and the beating of drums; and how powerful mere rhythm is or can be, no lesser man than Beet-

¹ See the *Primer of Philosophy*, pp. 81-88.

hoven, the philosopher among musicians, proves to us in the ninth symphony in D major (opus 21), of which Grove says:

"For an instant one listens almost in doubt whether it has really begun. Until Beethoven's time, the drum had, with rare exceptions, been used as a mere means of producing noise—of increasing the din of the *fortes*; but Beethoven, with that feeling of affection which he had for the humblest member of the orchestra, and which has made him (in this concerto and elsewhere) give independent passages to the horn or the bassoon, which have immortalised those instruments—has here raised the drum to the rank of a solo instrument. And not only that, but these four notes of the drum, like the first rays which herald the sun, give a color and individuality to the whole of this great and radiant movement. These four notes are heard all through it—their broad noble rhythm pervades the whole—now in the fiddles, now in the horn, now in the trumpet, now in the full orchestra—always characteristic, always impressive, always the pivot upon which some unexpected enrapturing change takes place, or some new appearance of the theme or the solo instrument is to turn."¹

While rhythm is the strength of music and its backbone, pitch is its beauty; and pitch again is representable in numbers. The physical conditions of pitch are the number of air-waves which vibrate in a given time. The increase and decrease of these vibrations, or, as we are wont to say, the rising and falling of the notes, is indicated in our musical notation by the higher or lower position of the notes on or above or below the five lines; but pitch, like rhythm, can be expressed in numbers.

Grassmann² and Helmholtz have proved that what we call the timbre, or *Klangfarbe*, of sounds, which is that peculiar acoustic coloring possessed by the sounds of the various instruments, such as violins, trumpets, harps, pianos, the human voice, etc., is due to accompanying sounds which vary according to the medium by which the tone is produced; and it is theoretically possible to express all the differences of timbre of orchestral music in numbers.

Rhythm and pitch combined constitute melody which is full-

¹ Reproduced from the programme of the Beethoven Concert given in the Auditorium at Chicago, May 4, 1894, under the direction of Theodore Thomas.

² Grassmann published his researches before Helmholtz in a gymnasial programme of the Marienstift, Stettin; but as this method of publication was very ineffective, and Helmholtz was more popular and better known, Grassmann is rarely credited with the priority of the discovery.

fledged music, and the additional element of harmony renders it more complex and more beautiful. Harmony, however, like rhythm and pitch, can be expressed in numbers. The beauty of harmony consists in a certain regularity of arithmetical proportions among the numbers of the various air-vibrations.

There is a peculiarity about music which is that a musician need know nothing about the physical conditions and arithmetical relations, for he perceives them directly and immediately. Music is, so to say, an intuition of the ear. It is the cognisance of a world of most delicate phenomena anterior to any reasoning or mental comprehension. The ear feels the consonances and dissonances in all their details without having any idea of the nature of their general cause.

Among the few philosophers who have discussed music Schopenhauer's theory deserves to be specially mentioned, in so far as he has exercised an uncommon influence upon the musical development of modern times. Wagner is one of Schopenhauer's most faithful disciples, who, in his greatest dramatic work, the trilogy of the *Nibelungen*, goes so far even as to make the longing for extinction his main theme and dominant *Leitmotiv*, giving expression to the most negative conception of the Nirvâna-idea, which Schopenhauer finds realised in the utter negation of the will.

Schopenhauer's conception of music is, that although it is related to the world as the representation to the thing represented, it is, nevertheless, not an imitation of nature in any of its various phenomena, but a copying of the will itself, who is the creator of nature and its metaphysical condition, the thing-in-itself. Thus he traces, if not a likeness, yet a parallelism between music and the manifestations of the real world. He says:

"I recognise in the deepest tones of harmony, in the bass, the lowest grades of the objectification of will, unorganised nature, the mass of the planet. Further, in the whole of the complemental parts which make up the harmony between the bass and the leading voice singing the melody, I recognise the gradation of the ideas in which the will objectifies itself. Those nearer to the bass are the lower of these grades . . . the higher represent to me the world of plants and beasts . . . lastly, in the melody, in the high-singing principal voice leading the whole and progressing with unrestrained freedom, in the unbroken significant connexion of one thought

from beginning to end representing a whole, I recognise the highest grade of the objectification of the will, the intellectual life and effort of man."

Schopenhauer repudiates the theory of a direct imitation of nature, and yet is his fault in theory the same as that of Abbé Vogler. However helpful the method of symbolising in music the various phenomena may be, and however suggestive the onomatopoeic aspirations may prove to composers, all these references of music to the surrounding world are foreign to its inmost nature. It is true that the very greatest composers were not free from attempts at imitating all kinds of natural events. Handel sought to express in music the Egyptian darkness. Haydn reproduced the effect of light in his oratorium, *Die Schöpfung*, in the passage *Es werde Licht und es ward Licht*; Beethoven reproduced in his *pastorale* scenes of idyllic life, a storm and the return of a rainbow-graced sunshine. Loewe, best known through his melodious ballads, in his *Auferweckung des Lazarus*, went so far as to indicate in tones the odors rising from the tomb. Granted that these composers produced grand and original music in the passages that were suggested by such ideas, we cannot say that they accomplished their intentions. We have to be told that these trumpets mean light and those drums imitate thunder. They may mean anything else; and Rossini's grand composition of *Stabat mater* might illustrate as much the triumph of a struggling hero as the tears of a mourning mother.

Music is a world of its own. It practically demonstrates to us that the real world of nature is only one actualisation among many possibilities. We can imagine that other universes existed which differ in kind from this in which we live. It may be built up without matter and without anything that deserves the name substance. Yet in order to be a universe it must be an exemplification of law. Music is the most perfect embodiment of purely abstract law. Nothing is more abstract than number, and musical forms reveal to our immediate apprehension nothing but numerical relations. Nevertheless, music is no arithmetic, and sonatas are no paradigms. Music is all through aglow with sentiment, and it is well known to be the most effective means of rousing and laying the passions of our heart. And why is that? Because if we could analyse all the

throbs of our life, we would find nothing but motion. Our pulse is rhythm, our breathing is rhythmic, our walk and all our doings, our loves and hates, our hopes and fears, our pains and pleasures, in a word, all our emotions are rhythms that are scanned in the vibrating functions of the organs of our body.¹ Our physical life, in all its details, is a sonata which we perform without being able to hear its music. We know nothing of the metre, we only feel it, or, better, our life-actions are the changeful metre itself, and we live on in its perpetuation and constant repetition.

As a musical sound agitates a chord whose note corresponds with it, and rouses its slumbering note, so the music of sentiment that lies concealed in the rhythm of our life responds to the songs and sonatas of the composer as it happens to find our organisation attuned to their reception, and the soul re-echoes the appeal of melodies according to the rhythms that are awakened in the delicate fibres of its most secret life.

EDITOR.

¹ The all-importance of rhythm is very forcibly shown in Professor Billroth's posthumous essay, "Wer ist musikalisch?" published by Eduard Hanslick in the *Deutsche Rundschau*, Vol. 21, No. 1 (Berlin, 1894).

THE KEY TO THE RIDDLE OF THE UNIVERSE.

A DISQUISITION ON MR. EDWARD DOUGLAS
FAWCETT'S PHILOSOPHY.

MONADOLOGY is a philosophical system based upon a psychological hypothesis that is now almost universally regarded as antiquated. Its greatest representatives were Leibnitz and Herbart, but there are only a few disciples of Herbart now left in Germany, among whom O. Flügel and Ed. Dillmann¹ are the most active and best known, while in England a new and able champion of monadology has arisen in the person of Mr. E. Douglas Fawcett.

That a theory is considered antiquated is no reason why it should not be revised and tried again, but the trouble with monadology is that it renders the facts for whose explanation it is invented, more mysterious and complicated than they naturally are. The problem is solved at the sacrifice of a number of new problems, the solution of which is a hopeless task, and the sole comfort lies in the consideration that having transcended the boundary line of physics, we are moving in the fairy-tale realm of metaphysics, where physical experiment and proof is dispensed with and speculation can be indulged in without fear of the pruning-hook of criticism.

Mr. Fawcett is a scholar who is well read in the history of philosophy; his command of language is excellent, and some of the new terms which he has invented are very forcible. But the abler the defence the more obvious becomes the gratuitousness of the monad-

¹ See O. Flügel, *Die Seelenfrage*, and Ed. Dillmann, *Darstellung der Monadenlehre*.

ological assumptions. Indeed, the theory need only be worked out in detail to reveal the fallacies of its complicated metaphysical apparatus, and any student of the system, except perhaps its own inventor and some of his most ardent disciples, will lose confidence in the practicability of the scheme.

Among the arguments which are supposed to buttress the theory of monadology the strongest one is said to be found in the testimony furnished by our workaday consciousness. A subject is posited as the ground, source, and sustainer of our fugitive states of consciousness. Mr. Fawcett argues :

"No subject, no flux of sensations in time ; no subject, no order of sensations in space ; no subject, no memory, no expectation ; no subject, no introspection ; no subject, no explicit I-reference."—*Riddle of the Universe*, p. 265.

The subject is described as a monad, i. e., "a unitary individual centre of consciousness, actual or potential." (P. 337.)

Monads are described as atomic, and the chemical atoms appear to be monads of a lower order. The subject is the central monad in man's organism ; for there are also "ganglionic monads" and "a variety of states separately present in separate monads are mirrored as united in the glassy essence of the subject" (p. 314).

The monads, however, although called the well-springs of reality, have themselves sprung from a universal subject which is the impersonal *prius* of existence and the ground of all reality whatever. This *prius* is neither conscious nor unconscious, but metaconscious, whatever that may mean, and in it "individuals can hang side by side without mixing."

The sciences, especially physics, chemistry, and psychology, will have to be rethought from the standpoint of the metaphysics of monadology ; such "well-attested phenomena," as clairvoyance, thought-transference, and telepathy, which bewilder a materialistic science, fit in easily with Mr. Fawcett's doctrine, and new light is promised on old problems, especially in the domain of evolution. Mr. Fawcett says :

"The universe is made up of individuals of various grades, its development is the expression of their development, and this, again, rests on their mutual further-

ances and hindrances as variously related. This necessary change of relations is the key to the riddle. . . . *The humblest atom-monad undergoes a ceaseless palingenesis.* When hydrogen-monads 'combine,' as we say, with oxygen-monads as H_2O , they have *special overt states* answering to these special relations; when, again, they occur in H_2SO_4 , they have *other overt states.* Now, these two sets of states of the hydrogen monad answer to what for the human Monad would be two life-dreams, or two separate 'rebirths,' and the known shift of its relations is Palingenesis on the lowest level. Not only, therefore, can palingenesis be deduced from the doctrine of the Metaconscious, but in the case of the lower monads it can, also, to a great extent, be experimentally verified.

"Save in respect of *complexity*, Palingenesis, as here conceived, is exactly the same affair for the higher human monad as it is for an atom of hydrogen—a change of the relations of monads. We are thus led to regard the universe as in last resort an aggregate of palingenetic individuals, the unfolding of which constitutes the Evolution of Deity."

The difficulty over which Mr. Fawcett stumbles is the problem of the origin of the ego-perception, which appears to him as the condition of the continuity that obtains in memory and forms the basis of our personality. He is more materialistic than he is aware of himself. He attempts to think the conditions of psychical unity as an actual being and endows it with a kind of substantial existence, which, however, in order to escape the absurdities of his materialistic procedure, he makes as small as possible, only preserving its indivisibility and individuality. The result is his belief in monads.

Mr. Fawcett will find that the problem of memory lies at the basis of the problem of personality, and psychical continuity is nothing but the preservation of form in the flux of metabolic changes taking place in a sentient organism. No subject-assumption is needed to explain the I-reference, nor to explain the recollection of past experiences or future expectations. A rational explanation of memory renders Mr. Fawcett's monadology redundant.

If our skin be cut, the wound will heal ere long; but a scar will be left, and the scar preserves the exact form of the wound. The material particles which constitute the skin are renovated again and again, but in all this flux of matter the form of the cut is preserved. Should, however, the atmosphere be charged with those abnormal tensions which prognosticate rapid changes in the weather, the irritation may be felt in the scar and may reproduce a weak repetition

of the pain of the old wound ; and no subject is needed to explain the phenomenon.

The evolution of organised life is a product of memory. Sentient substance reacts upon its surroundings and every reaction leaves a trace which is preserved, and which by repetition develops into an organ. Thus function creates the various forms of life which we call the souls of sentient beings, and the preservation of form means the preservation of soul.

Form is generally looked upon as a nonentity, but it is the form of a thing which makes it what it is. Form is the most essential part of reality, and the preservation of form means the immortality of life.

The key to the riddle of the universe lies in a correct comprehension of the nature of form. It is not accidental that the formal sciences (mathematics, arithmetic, logic, and pure natural science, which latter propounds and explains such truths as causality and the law of the conservation of matter and energy) are the mental tools of the scientist. Formal laws are always the ultimate explanations, and more mysteries are revealed by measuring and counting, which constitute the main methods of the sciences, than by monadological speculations. A correct comprehension of the nature of form, including a recognition of both the reality of form, and the sweeping importance of its preservation, which implies the immortality of the soul, will enable us to dispense with all materialistic theories of psychical and mental phenomena, it will teach us a spiritual conception of spiritual truths and throw light upon the great problems of life which confront us in problems of ethics and religion.

EDITOR.

BONNET'S THEORY OF EVOLUTION.

A SYSTEM OF NEGATIONS.¹

"Truth emerges sooner from error than from confusion."—*Bacon*.

BONNET'S theory of evolution, it is well known, was radically different and even diametrically opposed to the theory of evolution as now commonly held; it was an absolute denial of newformation, or epigenesis, and was based upon the idea of preformation in the sense of instantaneous original creation. This is an historical fact which should not be obscured by the distinction which has lately arisen between those who maintain and those who deny the inheritance of acquired characters—between the Lamarckians and the Weismannians. The new idea of preformation opposes only that one-sided epigenesis of recent date which insists that all true epigenesis is from without, and that all generation from within must bear the name "evolution." The distinction serves to set off the extreme Lamarckian school; but it is quite modern, and not opposed to the idea of true generation. There are, nevertheless, some biologists who imagine they see in certain recent theories of development a renaissance of Bonnet's evolution theory. Are they not aware of the fundamental difference between the old and the new standpoints? Yet some of the advocates of epigenesis maintain that these distinctions vanish when we compare Bonnet's latest views with those now held by modern evolutionists. This claim has often been repeated of late, and I am aware that it is backed by eminent scientists, for whom I have the very highest respect. Among them is a no less revered authority than Professor Huxley, from whom I should not venture to differ except for reasons that seem indubitable.

¹ From the "Biological Lectures" at the Marine Biological Laboratory, 1894.

If Bonnet's theory of evolution had in it a truth of such vitality that it can rise, phoenix-like, from the ashes of its supposed demolition; or, to state it in a more conventional form, if our theories of development are carrying us back to the standpoint reached by the evolutionists of last century, it is a matter of more than historical interest. The issues that now lead embryological research are involved. Our ideas of development, the landmarks already passed, the cardinal points in our present horizon, our tendencies are all brought under the rubrics of comparison. Any mistake here must obscure the general situation in just those points where it most needs to be clearly defined.

Our chief concern is with standpoints. Compared with them, theories are of little consequence. The standpoint sets the limits to our horizon, and so determines the reach and range of vision. It is the vantage-ground of progress, the conquest of laborious research, of which one might say, as Johannes Müller once said of his own work: "*Es klebt Blut an der Arbeit.*" We have to deal, then, with a question of moment, and one which presents, in addition to its inherent difficulties, the obstacles raised by prejudgment. Let us try to clear the ground a little, so as to get into closer touch with the question.

One fact orients the whole field. It is the fact that we now build upon two broad truths which found their negation in the old theories of development, namely, *heredity* and *generation*. It may sound a little paradoxical, but it is true, that the two theories of last century not only contradicted each other, but also denied the very truths they came to explain. Evolution was the absolute negation of both heredity and generation, while epigenesis upheld generation, but denied organic continuity, the essential foundation of heredity. Let us make no mistake on this point, for it is fundamental and decisive as regards standpoints.

Both Bonnet and Haller boldly denied the possibility of generation. Why? For the obvious reason that generation meant epigenesis. There was no middle ground. If by any possibility anything of an organic nature could be referred to epigenesis, the miracle of creation would be reduced to the level of an every-day

occurrence. The backbone of the argument for *original* preformation would go to pieces if a single vertebra could arise epigenetically. Not so much as a supernumerary digit, or a monstrous organ of any description, troublesome as such things were to the preformationist, could be allowed to pass to the credit of epigenesis. Allow that a single organ can be formed anew, and the whole edifice of preformation would be irretrievably undermined. Bonnet saw the bearings and the perils of his theory, and he did all that ingenuity could do to guard the central idea against hostile attacks.

What that central idea was, and how the fate of the whole theory hung upon it, Bonnet makes clear in one of his earlier writings. Referring to the principles advanced in relation to the formation of the mule, Bonnet makes the following remarks, "prophetic of the event" already fulfilled on his own head:

"They [the principles] will always rest on the importance of the pre-existence of the germ to fecundation. I admit, then, that if the falsity of this observation should ever be demonstrated, the edifice I have attempted to erect on that basis would be as ruinous as those I have undertaken to destroy. Such is the natural fate which threatens analytical works; if we can but destroy the fundamental principle, and detach the main link from the chain, the whole work will be little more than a series of propositions which are more or less erroneous, and it can be looked upon in no other light than as a mere romance."¹

That "the pre existence of the germ to fecundation" meant to Bonnet the pre-existence of a *completely formed* organism, and hence the denial of generation, is expressly stated in a previous paragraph.

"Mais si le germe préexiste à la fécondation, s'il n'est pas engendré; si des parties qui ne paraissent point du tout exister existaient réellement, n'est-il pas fort probable que l'organe de la voix du mulet n'est pas engendré non plus?" (*Ibid.*, p. 59.)

Such is the burden of the argument throughout. Indeed, no one doubts that Bonnet *began* with a preformation so complete as to exclude generation, and that this idea was the centre around which the whole of his philosophy at first revolved. Did he ever abandon the idea, or modify it in such a way as to nullify the original dis-

¹ Preface to his *Contemplation of Nature* (1764); finally published as *Tableau des considérations*, as an introduction to the *Palingénésie philosophique*, Art. XII, p. 62 (1783).

inction between his doctrine and epigenesis? Did he knowingly, or by any inadvertence, ever once drop the bars to epigenesis? If he did, then there may be some truth in the current opinion that the new evolution is a revival of the old idea as it was finally left by Bonnet. If he did not, either directly or by implication, then there can be no foundation for such an opinion. I believe this opinion is erroneous, and that it leads to confusion that is wholly mischievous.

What Professor Huxley has said on this point must be carefully noted, as I suspect that some writers have taken his words in a sense that somewhat betters the instruction.

After pointing out that the hypothesis of *emboitement* is to be carefully distinguished from the hypothesis of evolution of a germ containing in miniature all the organs of the adult, Huxley makes the following statements:

"While holding firmly by the former, Bonnet more or less modified the latter in his later writings, and, at length he admits that a 'germ' need not be an actual miniature of the organism; but that it may be merely an 'original preformation' capable of producing the latter.

"But, thus defined, the germ is neither more nor less than the '*particula genitalis*' of Aristotle, or the '*primordium vegetale*' or 'ovum' of Harvey, and the 'evolution' of such a germ would not be distinguishable from 'epigenesis.'"¹

Observe that Huxley does not here authorise the opinion that "evolutionists" are reviving the objectionable features of Bonnet's system. There is no suggestion of a retrograde movement on the part of embryologists. Indeed, it is very clear that Huxley saw in modern embryology the verification of the main contention of epigenesis, and the repudiation of both of Bonnet's hypotheses. But while claiming for epigenesis, a complete victory over the doctrine of evolution as understood in the eighteenth century, Huxley takes care not to sanction the idea that epigenesis contains the whole truth. In fact, he makes a suggestion that, to my mind, outshines "the divination of genius" ascribed to Harvey. The words already "proved a prophecy" are the following:

"It is not impossible that, when the analysis of the process of development is carried still further, and the origin of the molecular components of the physically gross,

¹Article "Evolution," *Encycl. Brit.*, p. 745; *Darwiniana Essays*, 1893, p. 193.

though sensibly minute, bodies which we term germs is traced, the theory of development will approach more nearly to metamorphosis than to epigenesis." (*Ibid.*, p. 283.)

The movement here anticipated is not in the direction of the old evolution, but towards a view which represents the residual truth of both "epigenesis" and "metamorphosis." That part of the old epigenesis which started the germ as "*a sort of living precipitate in a clear fluid*" ("*colliquamentum*"), is of course set aside, and along with it the absurdities of Bonnet's idea of metamorphosis (change of external form without change of structure or substance).

In place of these errors are put the ready-made germ, with a structure received from the parent organism, impregnation by fusion of two germs, and development by a process of division. Evolution is viewed as :

"A course of progressive differentiation."

"A succession of changes of the form, structure, and functions of the germ by which it passes, step by step, from an extreme simplicity, or relative homogeneity of visible structure, to a greater or less degree of complexity or heterogeneity." (*Ibid.*, p. 199.)

Huxley says :

"From this point of view the process which, in its *superficial aspect* is epigenesis, appears *in essence* to be evolution, in the *modified sense* adopted in Bonnet's later writings; and development is merely the expansion of a potential organism, or 'original preformation,' according to fixed laws." (*Ibid.*, p. 204.)

The position here, so concisely sketched in 1878, is the one toward which opinion seems to be drifting. But while the philosophy is clear, the identification of it, or any part of it, with Bonnet's later views is, I believe, unwarranted by anything contained in Bonnet's writings. The comparison, if it be inadmissible, is all the more unfortunate for the sanction of an authority so universally respected. It has been taken for considerable more than its author would probably approve; for some have construed it against epigenesis, and others against evolution.

We should have no fault to find with the comparison if it were true, as Huxley seems to have supposed, that Bonnet finally adopted a definition of the germ which dropped the chief distinction between evolution and epigenesis, as understood in his time. I do not find

any such inconsistency between Bonnet's earlier and later definitions, and it is very certain that Bonnet never made any concession which, to his understanding, weakened in the least degree his idea of preformation. Is it probable that Bonnet tripped on so fundamental a matter without knowing it? Is it not more probable that Professor Huxley has put an interpretation upon his words which he would have most emphatically disputed? Is not the suicidal concession imputed to Bonnet, after all, merely an inference to which his words were liable, only when isolated from the context and construed to the mind of the reader rather than to the intention of the author?

Although the words "evolution in the modified sense adopted in Bonnet's later writings," might suggest, if they do not distinctly imply, that Bonnet finally resigned himself to a view hardly distinguishable from epigenesis; still I am inclined to think that Huxley only intended to hold Bonnet responsible for a definition, himself alone responsible for the conclusion supposed to be involved in it.

PRIMARY HYPOTHESES OF BONNET'S THEORY.

We might appeal at once to Bonnet's definitions of germs; but it will be better, I think, to consider first the general principles and bearings of the theory as a whole, reserving the definitions to be examined in the light of the ideas underlying them. Let us see what were the primary hypotheses of Bonnet's system of philosophy. Huxley has already pointed out the distinction to be kept in mind between *emboîtement* and *preformation*. These two hypotheses do not stand alone, however; neither are they of equal importance. Preformation, as I have already said, was the central idea—the very heart of the whole system of hypotheses—just that part, in fact, on the maintenance of which hung the life and use of all the other parts, and which was, therefore, most carefully guarded. Other parts could be modified, supplemented, or even wholly abandoned, if need be; but whatever the changes adopted, they were always measured to the necessity of keeping the preformation idea inviolate.

The doctrine of *emboîtement*, although regarded by Bonnet as "one of the greatest triumphs of the mind over the senses," and although filling a very conspicuous place in his speculation, was yet only an auxiliary hypothesis, to be used or laid aside at convenience. Its prominence, as a butt of ridicule, has thrown its companion hypothesis quite into oblivion. I refer to the hypothesis of "the *dissemination of germs*," which Bonnet always held in reserve for emergencies not provided for in "*emboîtement*." This hypothesis underlies no inconsiderable part of Bonnet's philosophy, and figures prominently in his ideas of regeneration and propagation by buds and slips. The more important modifications of views on the germ are connected with this same hypothesis.

We have, therefore, to recognise three primary parts in Bonnet's theory, namely, *preformation* (of the adult organism with all its essential parts), *emboîtement* and *dissemination*, and to bear in mind that the first stood as principal, the second and third as ancillaries. The latter, as employed by Bonnet, had no use or meaning, except to affirm and sustain the former. Holding firmly to *emboîtement* and *dissemination* and abandoning *preformation* would be a monstrous self-stultification. To this it may be replied that no one has charged Bonnet with complete abandonment of the idea of *preformation*, but only with a modification of his definition of the germ. But a modification that reduced "evolution" to a point where it could no longer be distinguished from "epigenesis" (if the old epigenesis is meant), would seem to fall but a little short of complete surrender.

PREFORMATION.

The whole question turns on what *preformation* meant to Bonnet. *Preformation* may stand for ideas that are quite distinct, or even antagonistic. As understood generally by the evolutionists of the eighteenth century, it was the *negation of all new formation*. It was the dogma of *original creation*, according to which all real formation was completed at the beginning of the world. The creative power was believed to have acted once for all, and to have since taken "*Ferien*," as Burdach (p. 562) expresses it. This was *syn-genesis* versus *epigenesis*, *original* formation of all at one time in op-

position to *new* formation all the time. This conception of preformation, which characterised the old evolution, has lost all scientific standing. So far the triumph of epigenesis has been complete, as all admit.

But the word preformation still has its use in an entirely different sense. We speak of the germ as the preformed foundation of the organism to which it gives rise, meaning, not that the adult form is already outlined in all its parts, but that the initial stage alone exists prior to, and different from, the stages that are to follow. In this sense preformation stands in no contradiction with postformation or epigenesis, for both are complementary phases of one development. Development begins with a minimum of preformation and increases this by every increment of postformation, until both the *pre* and the *post* are abrogated in complete formation.

The further we examine the new idea of preformation, the clearer it becomes that it differs *toto coelo* from the old notion. It does not allow that even the minimum of preformation with which development begins was an original creation. The germ is a preformation and at the same time a new formation. Germs are continually forming as the result of growth and self-division. The new germs are the pre-existing germs enlarged and divided. How the original ancestral germs arose we do not know. We find no evidence of spontaneous generation, but it does not accord with what we know to suppose that they were originally just what they are today. As all later stages of development are variable, we see no reason for supposing the initial stages invariable. In fact, germs must have varied, or the evolution of organisms is a myth. But the simplest germs we know grow and multiply by self-division. They do not arise agenetically like crystals, and we do not see how germs could be so simplified as to arise by chemico-physical combinations. The simplest term of the developmental series presupposes the co-existence of the fundamental powers of growth and self-division as absolutely indispensable conditions of heredity and variation. Yet we do not fall back on the rejected hypothesis of original creation. If there ever was a time when no organic elements of the nature of germs existed,—and of this we are by no means sure,—then we feel

warranted in assuming that they came into existence at a stage in the evolution of the cosmos when conditions were somewhat different from those now obtaining, and that they came by the same great highway by which all things come and go—the highway of natural law.

Observe how complete the revolution in ideas. The old preformation affirmed syngensis and denied epigenesis; the new preformation affirms epigenesis and denies syngensis. I do not assert that the present idea of preformation affirms all the extravagances that have usurped the name epigenesis; but I do claim that, as now generally understood, it denies the very thing it formerly stood for, syngensis, and presupposes and advocates the very thing it formerly opposed, generation in the sense of epigenesis. Not only is postformation, which is all there is left of the old epigenesis, maintained, but it is claimed to take place both from within and without.

More than that, everything that preformation now stands for is regarded as the product of phyletic generation—as the heritage of all past epigenesis.

Is it strange that preformation now rests on the very principles it was originally supposed to exclude? No stranger certainly than that the old evolution should die as an idea and live as a name for the antithetical idea of epigenesis. Such changes are not rare, and when comparing the doctrines of development in the eighteenth century with those of to-day, we have to be on guard against concluding from identity of names to identity of ideas. If names could be relied upon for the identification of ideas, it would be easy to make Bonnet the father of the dominant ideas of modern evolution. Bonnet held to continuity in the scale of life, but how different is continuity in *grades* from continuity in *generation* of organisms? Bonnet uses the expression "*genealogical tree*" to describe a branching community of polyps. But would any one accuse modern phyletologists, who make use of the same expression, of reverting to Bonnet's conception, into which the idea of genetic affinity did not and could not enter? The expression "*cellular tissue*" also occurs in Bonnet's writings, but I have never heard it intimated that Schleiden and Schwann were thus forestalled. If further illustrations

were needed to show that community of vocabulary does not always imply community of ideas, an appropriate one is found in Kant's definition of epigenesis as "*generic preformation*,"¹ and another in Burdach's "*epigenetic preformation*."²

BONNET'S POSITION.

Having seen that preformation may stand for extremes as wide apart as the doctrine of specific creation and that of modern evolution, we will try to ascertain Bonnet's position. That he began with the first extreme is undisputed; that he could have held both extremes at the same time is impossible; that he must have abandoned the first if he ever reached, or approximated, the second, is self-evident.

We are generally told that the germ, as first defined by Bonnet, was supposed to be an exact image, or, to use Huxley's words, "*an actual miniature of the organism*." Although Bonnet's language sometimes appears, at first sight, to indicate such likeness of form, it is made clear from numerous statements that it cannot bear that interpretation. In fact, exact form-resemblance was positively denied. In those earlier meditations upon germs, recorded in the first eight chapters of the *Corps organisés*, we find already the suggestion that the germ state differs from the developed state, approaching the form and nature of a liquid globule (Chap. IV, Art. 57). In Chapter IX of the same work, but written about twelve years later (1759), Bonnet points with evident pride to the fact that he has nothing to change in his earlier views, and again dwells on the contrasts between the earlier and the later stages in respect to form and consistency (Arts. 143, 146, 154), cautioning the reader, however, against supposing that the germ ever represents a fluid in the strict sense of the word:

¹ Since the power of reproduction is given in the organisation of the race, it may be said that in the first parents all future generations pre-existed dynamically.

² Differing from syngenetic preformation in not being *original*. Called "*epigenetic*" to indicate that the germs arise in the parent organism, at *different times*, but always *before* sexual concurrence. In the old theories of generation *prae* and *post* generally related to the prime act of reproduction. Preformation was always *complete*; postformation *gradual*.

"On se tromperait si l'on pensait que le germe est originairement un véritable fluide. Les fluides ne sont pas organisés; le germe l'est, et l'a été dès le commencement. Lorsqu'il s'offre à nous sous l'apparence trompeuse d'un fluide, il a des vaisseaux, et ces vaisseaux s'acquittent de leurs fonctions essentielles. Ils sont donc solides; mais leur délicatesse extrême paraît les rapprocher de la fluidité" (Art. 154).

In the last chapter of the work, which deals with the formation of monsters, Bonnet says that the germ of the chick differs from the foetus so greatly in form, proportions, and arrangement of parts that, if we could see it enlarged just as it is, we should not be able to recognise it as a chick:

"Tandis que le poulet est encore dans l'état de germe, toutes ses parties ont des formes, des proportions, des situations qui diffèrent extrêmement de celles que l'évolution leur fera revêtir. Cela va au point, que si nous pouvions voir ce germe en grand, tel qu'il est en petit, il nous serait impossible de la reconnaître pour un poulet. On n'a pour s'en convaincre, qu'à relire l'Art. 146. Le poulet étendu alors en ligne droite, ne présente, comme le ver spermatique, qu'une grosse tête et une queue effilée, qui renferme les ébauches du tronc et des extrémités. . . Enfin, toutes les parties du germe ne se développent pas à la fois et uniformément." (Part II, Chap. VIII, Art. 351, p. 508. Tableau prefixed to *Palingénésie*, Art. 15, pp. 67, 68.)

It is thus made quite certain that Bonnet did not regard the germ as a photographic image of the adult form, and that idea must be put entirely aside if we would see just what is strictly essential in his conception of preformation.

The essential thing, as we shall see, was the pre-existence of the organism with all its parts completely formed, though not definitively shaped. Development could not form anything new, but it could modify shape and proportions very considerably. The ears, for example, in the germ of the horse were supposed to pre-exist as actual ears, but in what shape and proportions Bonnet never undertook to say. *All his theory required was that they should be present as perfect original creations, admitting of no differentiation or modification in their essential nature.* They must have shape, but not the particular shape presented in the adult state. The Creator had so designed them that, under normal conditions of development, they would expand into the form peculiar to the species. Slight variations of those conditions in the first stages might enlarge these organs to

the dimensions exhibited in the mule, or transform them to monstrous shapes, or even prevent their unfolding at all.

In organs conceived as infinitesimal "organic points," shape, size, proportions, signified nothing. Pre-existence of everything truly organic was the all-essential thing. Pre-existence, precluding all generation and regeneration, reducing all metamorphosis to simple change of external form, leaving no place for growth, differentiation, heredity, variation, or multiplication of individuals or species,—that was the preformation contended for by Bonnet. To be sure, Bonnet had much to say about fertilisation, assimilation, growth, heredity, and other general phenomena of development; but every one of these things was treated as extra-organic, and as purely mechanical means for expanding, without increasing, the original organic framework. All these things appear to go on; but our senses deceive us. They cannot go on at all, according to Bonnet. A mask of falsehood obscures the whole face of nature. Development is a complete illusion; for what appears to arise only emerges from a state of invisibility to one of visibility. Bonnet says:

"It is not necessary to suppose that the germ has all the features which characterise the mother as an individual. The germ bears the original imprint of the species, and not that of the individuality. It is on a small scale a man, a horse, a bull, etc., but it is not a certain man, a certain horse, a certain bull, etc. *All germs are contemporaneous in the system of evolution, they do not communicate to one another their features, their distinctive characters.* I do not say that all those of the same species are exactly alike. I see nothing identical in nature; and without recourse to the principles of *indiscernibles*, it is very clear that all germs of the same species do not come to develop in the same womb, at the same time, in the same place, in the same climate, in a word, under the same conditions. Such are many of the causes of variation." (*Corps organ.* II, Chap. VII, Art. 338, pp. 462, 463.)

But none of these causes of "variation" strike deep enough to change the essential foundation of the organism. Variations disguise the organism, without effecting any real change in its essential parts.

"The soil, cultivation and other special conditions, may influence the proportions and certain characters, so as to make it difficult to recognise the species. Here will be a dwarf, there a giant. Do not allow yourself to be imposed upon thereby;

bring them both to close examination, and you will be able to discover the species in the midst of these deceptive appearances. The forms may likewise change, and disguise the species still more; redouble your attention, and you will recognise the disguise." (*Contemplation*, I, Part VII, Chap. XII, p. 295.)

We meet with this idea of the immutability of species at every turn, in both the earlier and later writings of Bonnet. In the eighth chapter of the *Corps organisés* (p. 90) we read:

"Nature is assuredly admirable in the conservation of individuals; but she is especially so in the conservation of species. . . . No change, no alteration, perfect identity. Species maintain themselves victoriously over the elements, over time, over death, and the term of their duration is unknown."

In the same chapter (p. 89) Bonnet says:

"We cannot doubt that the species which existed at the beginning of the world, were no less numerous than those which exist to-day. The diversity and the multitude of combinations, perhaps also the diversity of climates and of foods, have given rise to new species or to intermediate individuals. These individuals uniting in their turn, the shades have multiplied, and in multiplying become less noticeable. The pear-tree among plants, the common fowl among birds, the dog among quadrupeds furnish striking examples of this truth."

Here Bonnet speaks in language befitting modern evolution of "new species," the very thing so positively denied. This manner of self-contradiction is habitual, and there is not the least inconsistency in it. Bonnet describes *appearances*, and he expects the reader to remember, what he has so often repeated, that appearances are deceptive. In many instances he uses the language of modern evolutionary doctrines without having any conception of them, and carrying always ideas that contradict them.

BONNET'S PREFORMATION AN INCORRIGIBLE NEGATION.

This preformation theory, contradicting appearances at every point, seemed to Bonnet and many other eminent men of the eighteenth century to magnify the glory of the Creator. To us it seems to be scepticism towards all nature, crystallised into a colossal system of inflexible negations, each involving the others, and all involved in one capital negation: NO ESSENTIAL CHANGE IN THE ORGANIC UNIVERSE.

The discovery of a single flaw in this all-embracing negative would put the whole theory in the light of a "romance," as Bonnet himself repeatedly declared. In one of the last of the many supplementary notes to the final revision of the *Corps organisés* (1779), Bonnet reaffirms this negative as a fundamental principle to which he had always firmly adhered. The note begins with the following warning from Haller:

"Observe that it is very dangerous to concede the formation of a finger by accident. If a finger may thus form itself, then a hand, an arm, a man, will do the same."

To this Bonnet replied:

"You are right; I have insisted upon that point a hundred times. I came to that conclusion long before you, when you supposed it possible for *une glu se figer et s'organiser*, and when epigenesis pleased you most. (*Corps org.*, Art. 155.) But observe, in your turn, that I have never attributed the formation of the least thing to accident. I have always conceded and maintained the preformation of everything that is truly organic. M. de Mairan made the same remark to me as yourself, and he received the same response. His objections against the sixth finger relate only to the graft of Lemery. I have not appealed to ingraftment; I have merely questioned if accidental causes might not have separated one or more fingers while they were yet in a gelatinous or nearly fluid state. In a word,—and can I repeat it too often?—I have never conceded anything but simple modifications of preformed parts, except certain cases of grafts or accidental separations." (*Corps org.*, p. 543.)

Such was Bonnet's testimony in 1778, while engaged in the final revision of his works, over thirty years after putting his first meditations on generation into manuscript (1747), and about ten years after concluding his system of philosophy in the first edition of the *Palingénésie philosophique* (1769). It was his testimony after a prolonged consideration of that greatest of stumbling-blocks to the evolutionist, the *propagation of monsters*. Although finally forced to admit that sex-digitism could be transmitted by either sex (p. 536), Bonnet maintained his position as firmly as ever, only hesitating to pronounce decisively between the hypothesis of originally monstrous germs and that of accidental causes. On this point he could close his volume with, "*fiat lux*," but on the main thesis,—all *preformation*, no *generation*,—he had chained himself irrevocably, and left himself no possible escape.

The same incorrigible negation meets us in Haller's dictum : "*Nulla adeo est epigenesis.*" To Bonnet it remained to the end the alpha and omega of philosophy and the sheet-anchor of religious faith. Let one example suffice :

"A true philosopher would not undertake to explain mechanically the formation of a head, an arm, however simple might be the structure of this head or this arm. In the most simple organic structure there are still so many relations ; these relations are so varied, so direct ; all the parts are so intimately connected, so dependent on one another, so co-operative to the same end, that they could not be conceived of as having been formed one after the other and arranged successively, like the molecules of a salt or a crystal. A sound philosophy has eyes that discover in every organised body the ineffaceable imprint of a work done at a single stroke, and which is the expression of that Adorable Will that said, '*Let organic bodies be, and they were.*' They were from the beginning, and their first appearance is what we very improperly call *generation, birth.*" (*Contemplation*, Part IX, Chap. I, p. 2.)

After wrestling with all the perplexing questions presented in Hydra ; after accounting for sex as a means of diversifying the unity of the *beau physique*, and sexual reproduction as a device for expanding the germ and preserving regularity of specific form ; after reconciling the existence of varieties with the permanence of species ; after contending that a mule is a disguised horse and a hinny a disguised ass, and that the sterility of hybrids is to be regarded as fertility kept dormant by lack of adequate means to unfold ; after reducing all heredity to likeness of original, contemporaneous, and independent creations, unfolding under similar conditions ; after elaborating a scheme of "natural evolution" broad enough to take in any number of cosmic revolutions, and provide for the ultimate perfection of every organism as an immortal being ;—in a word, after setting "Ferien" to all creative activity, Bonnet resolutely undertook to devise a scheme that would keep the holiday repose forever inviolable. With a zeal never daunted, and an ingenuity seldom baffled, never defeated, he piled mountain upon mountain of negation, rolling Ossa on Olympus and Pelion upon Ossa, until the whole organic world seemed to be completely buried under a stupendous mass of negations, blending in one infinite negation—No CHANGE.

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WE BEGIN, to-day, with four works treating, from different points of view, of substantially the same question, that of plurality and unity, of phenomenism and monism, around which the "theory of knowledge" incessantly revolves.

M. DE ROBERTY, in his work, *Auguste Comte et Herbert Spencer, nouvelle contribution à l'histoire des idées philosophiques au XIX. siècle*, studies, in the form of a criticism of the systems of these two philosophers, what he calls: "The conflict of two great cerebral waves, which flow in opposite directions: monism and agnosticism." In vain, he says, has the spirit of synthesis sought to force them into one bed. The undertaking was illusory, and we have seen, ever since Kant, the philosophers wandering afield in efforts to "combine the quest for unity with the dualism of knowledge." Their efforts after universal synthesis have turned back upon their agnosticism, formal or latent, whichever it was.

The criticisms of M. De Roberty are exceedingly interesting, although at times difficult and abrupt. Auguste Comte, he well shows, sought after the idea of unity not less than did Spencer; and we must accept as equivalent the idea of evolution adopted by the latter and the idea of a necessary and gradual development amplified by the former. Yes, the Comtian hierarchy of the sciences and the so-called law of the three stages does involve the idea of evolution, as I have observed more than once myself. But what is to be seen in evolutionism if not the affirmation of the experience which implies, under the forms of differentiation and integration,

"the two sole modes by which the mind seizes now the multiplicity of things and now their unity?"

We shall always, writes M. De Roberty, apprehend things or their *notions*, their *ideas*, by the aid of two opposed concepts. But that procedure, natural as it may appear, is after all nothing but a procedure, a method, a means. "It cannot set itself up as a definitive result, a final conclusion, an end in itself." Agnosticism, he continues, has never been willing to comprehend that simple truth. It appeals to the principle of the relativity of knowledge. But it is imperative that we should have some understanding of the true meaning of the principle of relativity. Its foundation is the *identity of contraries*, and relativism presents itself in the final result "as the psychological aspect of the principle of universal unity."

Comtian or Spencerian monism, with agnosticism and evolutionism, according to M. De Roberty, is the third of the great dogmas to which the universal conceptions of the past, be they theological or metaphysical, can be successively reduced. Comte wished to obviate the faults of doctrinal pluralism (he went so far, we will remember, as to declare the fundamental facts of the abstract sciences irreducible) by proclaiming the preponderance of the social or moral element, in doing which he reverted to the old teleological anthropomorphism. Spencer, in his turn, arrived at a reconciliation of the simple and the manifold only by means of a verbalism that masked the purely conceptual nature of the laws invoked by him as representing the facts. Confounding, instead of combining, the points of view of the different sciences, he succeeded at best in merely "flashing before our eyes, in the face of the purely logical unity of facts, the phantom of their unity, called real or transcendent." Let us note this last trait well. There lies the profound word of this criticism.

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M. E. BOIRAC, in his *L'idée du phénomène*, a clear and well-sustained work, skirts closely the thesis of M. De Roberty. He, too, battles against the noumenon of Kant and the unknowable of Spencer. Phenomenism and idealism—those two aspects have seduced the human mind, each in its turn! Now, what happens! When

the philosopher, if I may be allowed the metaphor, proclaims phenomenonism, the reduction of substance and being to pure phenomenal modalities, a malicious genius places before his eyes a mirror which sends back to him his own image; and when he proclaims idealism, the reduction of phenomena to thought, the same genius in place of the mirror holds before him a transparent glass, through which he sees the world depicted. In the two cases he is aware of the inherent contradiction of his artificial monism, and seeks his refuge in subsidiary conceptions, in compromises with the dualism of sensible experience.

M. Boirac has rehabilitated, as he himself confesses, the substantialism of Leibnitz, with amendments. For him the phenomenon is not all. Objective knowledge and phenomenon are synonymous. The duality, the opposition of seeming and being, of matter and mind, is not necessary. "The phenomenon and the substance are inseparable from one another, as they are two complementary correlative aspects under which all existence appears both to us and to itself." Substance exists, therefore, but it is naught else than the thought itself of the relation which binds the phenomena together, the real and living idea, the intuition of their solidarity, of their inner continuity.

It would seem as if M. Boirac had, by a dialectics of his own, arrived at the logical monism of M. De Roberty. Nevertheless, the obstacle which he finds in the multiplicity of the *partial* thoughts reveals in him a distinct type of mind. How are we to reconcile that multiplicity, he asks, with the unity of the universal subject, with the *total* thought? That problem, which appears to him formidable, indicates perhaps the disquietude of a transcendent substantial monism, which may soon lead him to give a new shape to the difficulties which he has sought to solve.

* * *

In his *Définition de la philosophie* M. ERNEST NAVILLE affirms once more his spiritualistic faith. To him spiritualism is the only monism reconcilable with the distinction between the elements of the universe established by philosophical analysis, the only one which resolves the problem of the coexistence of the simple and the mul-

tiple, and of the finite and infinite. The free-will of man, the postulate of the moral order, has only place, he repeats, in a doctrine which makes of liberty the principle of the world. The distinguished and venerable professor also demands that "the practical consequences of systems of philosophy should be one of the essential elements of their valuation." But how are we to determine, in advance, the practical consequences of a system? Where are we to get the criterion to judge them by? If we went to the bottom of the question, we should soon come again upon all the difficulties which it clears up.

Affiliated with the philosophy of M. Naville is that tendered to us under the title of *Science et conscience, ou théorie de la force progressive*, by M. KLEFFLER, an engineer who died recently. The "philosophy of common sense" M. Kleffler calls it, considering the affirmations of spiritualism as the data of common sense; or "the natural method," for it appears to him inconceivable that philosophy should not assume the task of reconciling the objective data analysed by science with the subjective data furnished by consciousness. I see pretty clearly where our author, who is a mystic without knowing it, would lead us. But how difficult the road is! What abuse of dialectics, what absurd obscurity! Common sense, of whom? That of M. Kleffler or that of M. De Roberty? That of the eleventh or that of the twenty-first century? Common sense is not something primitive, it is something resultant. How are we to prove that the common sense or consciousness of one class of individuals, or of one historical epoch, expresses the necessary, universal mentality? There is nothing universal and necessary except our logical actions which have worked to produce the qualified mental states of the "common sense." But those products themselves are changeable and modifiable in a large measure. The mill-stone of our mill serves for grinding grain of all sorts; according to the grain which we give it, will be the flour it grinds for us.

* * *

We come now to a few books on psychology. The first is the *Introduction à la psychologie expérimentale* of the Messrs. A. BINET, PHILIPPE, COURTIER, and V. HENRI. The second is also a work

by M. BINET entitled *Psychologie des grands calculateurs et joueurs d'échecs*.¹ I need not speak of them here as both were reviewed in the October *Monist*, of last year.

I shall not pass so rapidly over the little volume of M. GASTON DANVILLE, *La psychologie de l'amour*. It might have been better composed and livelier in style. But it has its value, and we must accede to M. Danville the merit of having searched for and perhaps found a "psychological" definition of love, that is to say, of the affective and intellectual state which accompanies the sexual appetite in the higher animal—in man. His formula is a little complicated, and I hesitate to transcribe it. It will suffice to indicate its sense, to give the analysis which has led him to it. That analysis, running along the scale of the animal species, shows an evolution which has made love pass from its *motor* phase to its *affective* phase and from thence to the *intellectual* phase. In the motor stage the appetite engenders only movements, in the affective stage it is manifested along with a cortège of characteristic emotions. The intellectual period, finally, which is only realised in the heroes of love, reveals by the choice of the object loved and the consciousness of the goal pursued, a more complete systematisation in actual sight of an *ideal* preformed and recognised. Max Nordau had previously signalled the prominent rôle of the ideal in love. But M. Danville had not read the *Paradoxes* of that author, and I regret also that he has not spoken of the *Psychologie der Liebe* of Julius Duboc, if, peradventure, he knows of it. The work of that philosopher, which I have discussed in France,² merited mention in M. Danville's book.

Still the psychological side of love should not cause us to neglect too much the physiological side. Without the sexual appetite the whole psychical tableau would be effaced. Love remains essentially an appetite, like hunger and thirst. The accoutrements alone change. The delicate, high-strung lover resembles in some respects a connoisseur of wines who embellishes the gross needs of the table by eating and drinking upon fine linen, in flowered porce-

¹Published by Hachette; the other works mentioned are published by Alcan.

²*Un athée idéaliste*, in the *Revue philosophique*, Nov., 1884.

lains, and from polished crystals. Yet eat and be nourished he must; ultimately, it is the same affair.

This M. Danville does not gainsay. Where he seems to me to carry things too far is when he refuses to see a pathological symptom in that "excessive" obsession, which leads the lover to absurd or criminal acts. True, I do not wish to say that a man is insane for loving passionately. But the criterion of "utility" invoked by M. Danville for the justification of the Werthers is insufficient; it leaves us a deficit in the analysis of the facts. Amorous obsession, he tells us, is useful because it makes for procreation. But that end could have been just as well attained with another woman. And it is recognised by poets and physicians of love that one *can* truly love more than once. Besides, the end is totally lost when suicide is committed or when one does not recover. The criterion ought to be sought rather in the power of inhibition. It is not so much aberrancy of mind that causes the morbid obsession, as impotence in getting away from it and escaping from its anguish. If this power is null or very weak in individuals, it is imperative to look upon such at least as neurasthenic subjects. The writers of to-day will have much on their hands. They will not make us accept as normal and virile individuals, the heroes of their passionate dramas. The Werthers burn out their brains, or worse still; the Goethes survive. After a certain stage the lover becomes the dupe of his imagination, and to his great detriment the equilibrium is destroyed in him, between the angel and the brute. Supposing him to have a more vigorous temperament, and a richer affective equipment, he will resist and he will love again. The incapacity for a new ideal marks only the exhaustion of the nerves and the impoverishment of the sentimental life, far from signifying force and superb expansion.

* * *

We have now to speak of a book, which in my judgment is a remarkable one, *Le sentiment et la pensée et leurs principaux aspects physiologiques* by M. ANDRÉ GODFERNAUX. I have read this book with all the more sympathy as M. Godfernaux has drawn his inspiration from M. Ribot's instructive oral courses, and from the clinical lectures of my master and friend, Dr. Magnan. The task he

has set himself is to seek out the relations which exist between sentiment and thought, that is to say, between the phenomena of the affective life, of internal origin, and the phenomena of representative life, of external origin. The various forms of mental alienation have supplied him with so many striking examples of these relations, the affective state has appeared to him, in psychosis and chronic delirium, so visibly the agent which influences the systematisation of thoughts, that far from the intellectual troubles having their origin in the thought itself he has been led to conclude, that in the normal consciousness, sentiment and thought should be in equilibrium, and that the one should grow as the other diminishes. In fact, in this respect normal psychology repeats morbid psychology, and this important consequence then imposes itself upon us that "the affective state is, even in a healthy individual, the ultimate agent in the association of ideas." Beyond question, ideas and systems of ideas cannot be welded together mechanically. The individual activity of the subject must intervene. And it is incumbent upon us to ascertain what that activity in its ultimate roots is.

I am favorably disposed to this theory, for I have touched upon it myself in a work just published and having for its title *Mémoire et imagination*. I, too, insist in this work on the motor elements which "double the systems of perceptions" that I there study, and I point out, for example, the ideo-motor nature of the professional memory of the painter, the musician, and the orator.

M. Godfernaux also emphasises what he calls the "motor-equivalent" of the affective state. The basis of our inner life, according to him, is made up of *tendencies* (Ribot's theory). Now, these tendencies, acquired or transmitted, especially the latter, are, he says, the underlying "dynamic associations" to which our *emotions* correspond. When the tendency, seeking to satisfy itself, systematises definite muscular elements, the emotion produces a synthesis of definite elements of consciousness, that is, of associations of ideas. The parallelism, in fine, is constant and rigorous between the conscious and the motor life. "The phenomena of consciousness act and react upon one another, and combine with one another

like the motor phenomena to which they correspond." This formula epitomises the whole work.

I am sorry that I cannot dwell at length upon this study. I shall point out, in closing, simply its "philosophical" conclusion. M. Godfernaux accepts a dualism of matter and mind, which, in my judgment, signifies nothing more than the collaboration in the human individual of heredity and personal initiative. A law which binds together body and mind, he says, asserts that body and mind tend alike to adapt themselves to their environment. What is here biological function is there logic and reason. But what is the essence of the adaptation? What is the true personal capital of the individual in the vast aggregate of the inherited influence of his species? That question still remains open.

* * *

Four important works on sociology next claim our attention. Let us see if we can make clear to ourselves their spirit and scope.

First, M. G. TARDE gives us his *Logique sociale*, a large volume of nearly five hundred pages and constituting the sequel to his *Lois de l'imitation*, of which I have spoken before. This work, like all the books of M. Tarde, is conspicuous for the wealth of its ideas, and the originality of its point of view. I should say even that the profuseness of details in this instance hinders a clear comprehension of the whole. The author aims at a reconstruction of sociology. What is his idea here? Auguste Comte, and after him Herbert Spencer, links sociology with biology. M. Tarde is more particularly concerned with psychology. The two first-mentioned philosophers likened societies to organisms; the latter prefers to compare them to that anomalous and privileged organ, the brain. Such are the premises from which all the rest follows.

First, an observation. Undoubtedly, Comte in the classification of the sciences rested sociology on biology. But it is to be remembered that in his view psychology is merely a branch of biology, and it is absolutely impossible to contest that he connected the development of society with a confessedly psychological principle. According to Comte, ideas "rule the world," and his celebrated "law of the three stages," which is also a law of evolution, makes

the progress of society depend on a purely intellectual element. Comte did not, therefore, in the rigorous manner that Spencer did, liken societies to brainless organisms, and M. Tarde might claim him as his predecessor. However, let us see to what results this comparison of society with the cerebral organ leads us. The novelty of the point of view will be evident.

Comte had confined himself to deducing from a general study of history his law of succession of the theological, metaphysical, and scientific stages; he explained history by the internal action of the methods that had produced and sustained those truly characteristic epochs of human thought. Littré has since shown—I may be permitted here to remind the reader of it—that whilst the law of the three stages is still properly applicable to *intellectual* development, it no longer suits well with the development of *economical* and *artistic* facts. Without discussing at present the merits and the defects of that formula of Comte, let us observe that this philosopher gave his law as a complete whole, and that he did not go back to the psychological study of man, who is the real factor of history. Now it is just here that M. Tarde, basing his views on the numerous results recently reached in psychology, has made his innovations and additions.

In the first place, he advances the extremely apt reflexion that that which has been actually and historically realised is a part only of what could or might have been realised. Determinism admits of *possibilities*. There can be no doubt, I think, that biological developments *could* have taken place that have nevertheless been arrested. Human history also presents us with lines of growth which have been cut short or have been unequally developed. It will be sufficient to mention that phenomenon in Chinese history which has reached such interesting organisation and is founded on the perpetuity of family and the inalienable family property.¹ Starting from this idea of possibilities, M. Tarde has had to forego the consideration of evolution in an undeviating straight line. He has not sought,

¹ I shall have something to say later concerning the studies of M. EUGÈNE SIMON, *La cité chinoise, Sur la terre et par la terre, Le familial*, etc.

he tells us, to disengage the historical succession of events from its actual concatenation with inventions and discoveries; he has only sought to point out the *ensemble* of their possible concatenation. The allusions to "inventions" here is in its broadest sense. Imitation, it appears to him, plays socially the psychological rôle of memory; invention, he regards as the social equivalent of perception and decision, of judgment and will. In short, sociology as he understands it, is merely a magnified psychology—a *collective* psychology.

The reader must go to the work itself for the exposition of this psychology. M. Tarde will explain to him "how the social tissues are formed" and "in what manner they are organised." He has done this with rare talent. But does this collective psychology constitute all of sociology? Will the analysis of these two factors, imitation and invention, dispense us from studying the social structure in itself, in some such way as we study the organisation of the biological series? Is the search for a general expression of the results of human activity forbidden us, and will the abstract characterisation of such an expression, the law of Comte, for example, shut out forever the reality of the facts which it sums up and defines? In speaking of the "social tissues," M. Tarde, perhaps, is not so far removed as he thinks from that comparison of societies with living organisms which we shall now see another author take up and define with greater precision.

* * *

M. le DR. JULIEN PIOGER, in his new work, *La vie sociale, la morale et le progrès*, still persists in basing sociology on biology. He admits, with Greef, that we find in the social life different functions from those of organic life; but maintains, nevertheless, that the justest conception which we can form of the social functions is to regard them "as manifestations of the social organisation in every respect analogous to what are called functions in biology." The knowledge of the individual does not exhaust the knowledge of the social datum. The moment he is taken into the collective organism the individual is no longer a discrete being. The conditions of his activity are then modified, as are also the effects of his acts. "Without the social structure, without its support, or bond, the individual

lives would succeed and come into juxtaposition with one another without presenting that unity, that continuity in time and space, which gives to each society its individuality and life."

But to what part of the organism are we to assign the individual? Man, answers M. Pioger, corresponds better to the blood globule than to the anatomical element properly so called. "Blood globules represent the living element *par excellence*; they circulate in all the tissues, etc." He adds: "Just as the grand biological functions, alimentation, respiration, circulation, and innervation are not discharged by the anatomical elements individually, but result from their differentiation, from their appropriation, from their specification, by organisation into physiological apparatus to which the blood supplies activity, similarly, the social functions are not the work of man individually, but result from the differentiations, adaptations and organisations of social elements into organs to which man transmits his activity."

That imitation, therefore, for which M. Tarde seeks his laws, is fundamentally conditioned by the social fact itself. Without reaction upon the individual no imitation; no reaction if the individual is not already united by bonds of solidarity with his fellows. Accordingly, we must always seek the point of a departure in the plasticity of a human being (imitation, evolution, selection, heredity, or instinct), the point of arrival in his social incorporation, in his "socialisation."

"It is not," writes M. Pioger, "because societies do not constitute living organisms that they resemble those organism so little, but because at present they are only in a lower stage of their development and because if we wished to compare them at all to living organisms we should do so not with the higher animals but with the lower organisms called polyzoans, in which physiological individualisation is still imperfect."

M. Pioger has many excellent pages on "progress." They flow from his leading conception and also show its advantages. I should only have to place some reservations on certain conclusions of his in the economical field, which I do not think are well founded.

M. G. LE BON in his *Lois psychologiques de l'évolution des peuples*, like M. Tarde, explains the phenomena of history by a species of collective psychology. He is not occupied with seeking out the secrets of events in the play of a "social logic"; but he regards the races as "individuals" and centres the life of history in the life of those races. He studies their psychological characters, their formation, the limits of their variability; he shows how the psychological characters of races manifest themselves in the different elements of their civilisation, how they modify each other, and finally, how they are dissociated. Races—historical races or nations—possess in the opinion of M. Le Bon characteristics of varying and very unequal worth, but stable. "Every nation," he writes, "possesses a mental constitution as fixed as its anatomical characters, from which its sentiments, thoughts, institutions, beliefs, and arts are derived." He maintains that "grand, permanent laws control the general march of each civilisation"; but among those permanent laws "the most general, and least reducible," appear to him to flow "from the mental constitution of the races." Let not the reader think, though, that M. Le Bon is seeking for a law of history in intellectual evolution, after the manner of Comte! Emphasising the importance of "ideas" as he does, yet when he studies the causes of the decadence of nations he discovers those causes in the degeneration of "character," and even slights the import of intelligence in the success of nations. He excellently remarks that ideas have no efficacy until they have passed into the feeling. Still, some confusion subsists; for ideas are not equivalent to inventions. Either intelligence does not represent for M. Le Bon all that the word implies, or character signifies more than is implied in it. Hence arises a hesitation—one might say, a contradiction—in the thought of the author, and this is partly the reason that his work, although full of just *aperçus* (I discover in many passages the influence of Madame Clémence Royer, and above all of M. Charles Mismar) is not entirely satisfactory. The reading of the book is instructive and interesting, but one is not convinced nor moved by it.

One word more. The races of M. Le Bon so far as they constitute independent series correspond in a measure with the "possi-

bilities" reserved by M. Tarde, and place before our eyes the concrete varieties of history. But the relative place of the races in the chart of general civilisation is not determined by the characterisation; an easy comprehension of the whole is still lacking, and those "psychological laws of the evolution of the nations," even if they were less vague, afford us scarcely the least hold on the evolution of humanity.

* * *

His latest book, *Les gaspillages des sociétés modernes*, will assure to M. J. Novicow the place which his previous works have gained for him among the economists of the French language. M. Novicow had shown progress to be involved in the different transformations of *competition* in life, which at the outset was purely biological but passed finally into the domain of ideas. He takes up to-day the study of the conditions which favor the economical progress of society and of the causes that retard or prevent it. The causes of evil are to be understood only from the conditions of the good, and if we define progress with M. Novicow as the adaptation of man to his environment, and of the environment to man, as effected in the least time, and with the least possible effort, we shall be near to conceding with him that the vice of our great social machines is their unbounded waste both of the time and labor of men.

Poverty, he writes, does not come solely from the inequality of the distributions; it still comes largely from the insufficiency of the goods to be distributed. The socialists complain of the first of these facts, but usually neglect the second. To attain a really adequate state of well being, it will be necessary at least to quintuple the present production. Now three fundamental errors prevent this: the confounding of wealth with money, the confounding of wealth with property, and the belief in a state of original perfection. The author shows, and this is the gist of the book, that the first engenders protectionism, the second social parasitism and the spirit of conquest, the third intolerance and routine.

No doubt M. Novicow will be reproached with not having always sufficiently taken into account the difficulties of adaptation peculiar to each time and each country—a neglect which has led

him at times to rather severe judgments. To this he will reply that he has only wished to sketch out a general preliminary plan to which it will be wise to conform. If other critics reproach him with having simplified the questions too much, they will at least do him the justice of granting that his purpose in simplifying them has been to make them more easily understood. He lays bare our most sensitive wounds; but he cherishes a confidence in the future which stimulates and comforts us.

* * *

With M. FRANCELOM MARTIN'S new work, *La perception extérieure et la science positive*, we return to pure philosophy. M. Martin has order and clearness; but his habits of mind are not ours, and his reasonings have not convinced us. He has undertaken to show: (1) that science has passed through three very clearly marked stages—the substantialistic interpretation (of what things consist), the finalistic interpretation (why they exist), and the mechanistic interpretation (how they have been produced and are conditioned); (2) that science retraces the path of perception, but in the opposite direction: all that perception, or spontaneous, concrete observation has put into things (time, space, causality, finality, substance, individuality,) it is the effort of the scientific mind or abstract observation to get out of them again, by substituting quantitative relations for the qualitative relations which nature presents.

The first thesis is maintainable. I have myself long made use of a similar seriation for my own instruction, but I would not exaggerate its merits. As to the second thesis, the definition of M. Martin slightly perplexes me. If "perception" signifies the simple judgments by means of which in the multiplicity of sensations the mind gets light for arriving at a relatively precise knowledge of particular facts or "individuals," we may say that science has for its end the more exact knowledge of elementary facts or "concretes." If perception denotes merely tentative explanation, we may remark that it corresponds in some measure to the intellectual state designated fetishistic or theological. Take it as we will, then, perception appears to be only a species of imperfect science which in the historical or individual evolution remains the substratum of perfect

science. But I cannot very well see what the value is of the parallelism of M. Martin, from the point of view of a "philosophy of the sciences" and of the explanation of scientific development.

What appears most clearly in this work is the desire to withdraw *mind* from the action of the external world, to restore it as a primordial agent, to battle against the mechanical theories, and to reach the ground of idealism by the path of criticism. "Kant," says the author, "assumes things to be formed by the mind; the empiricists assume the mind to be formed by things; we shall consider it as forming itself by experience." M. Martin desires neither to neglect evolution as Kant did, nor to slight mind in the manner of the empiricists. He does not seek to conceal, I think that he *reserves* mind rather than discovers it. What does the old antithesis accomplish in which both idealism and materialism still loiter if not the objectification and substantialisation of simple logical positions.

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M. Tescanu publishes, with a biographical notice, the *Théorie sur l'ondulation universelle, essai sur l'évolution*, of his Roumanian compatriot, BASILE CONTA, a philosopher who died very young. The profundity of the work will interest the reader less perhaps than the intellectual character of its author. In some respects M. Conta was the disciple of Büchner. He calls himself a materialist, has cast aside all religious belief and sees in the universe only force and matter. With extensive knowledge, he has hardihood and penetration. But that does not prevent him from being naïvely enough a metaphysician. He thinks anew the science of others and aims to grasp the world in a formula. In his principle of universal undulation, where the evolutionism of Spencer is corrected by the attractionism, or rather gravitation, of Newton, I see a personal effort for a better comprehension of things by means of a hypothesis, I see a procedure of acquisition rather than a well-worked-out theory. M. Conta was a true philosopher, who was unfortunately not permitted to complete his full evolution and to fulfil all his promises.

I shall point out in closing an excellent work by M. GEORGES DUMAS, *Les états intellectuels dans la mélancolie*; a fine study by M.

FR. QUEVRAT, *L'abstraction et son rôle dans l'éducation intellectuelle*; a very interesting little book by GEORG HIRTH, which I have translated into French under the title of *Les localisations cérébrales en psychologie* (*Pourquoi sommes-nous distraits?*); the *Spinoza* of M. LEON BRUNSWIEG, which seems to me an excellent *résumé*; and finally the *Philosophie de Jacobi* by M. LÉVY-BRUHL, an extremely erudite contribution to the history of German thought.

LUCIEN ARRÉAT.

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BOOK REVIEWS.

AN INTRODUCTION TO COMPARATIVE PSYCHOLOGY. By C. Lloyd Morgan, Principal of University College, Bristol. With Diagrams. London: Walter Scott. New York: Charles Scribner's Sons (imported). Pp. 382. Price, \$1.25.

Works of the type and spirit of Prof. C. Lloyd Morgan's *Introduction to Comparative Psychology* are rare. By its ease and vivaciousness of style, its clear singling out of the fundamental points of interest, its economy, its philosophical grasp and broad comprehensiveness, it is an exemplar of what the propædæutics of the subject should be. From a rich life, sustained by exceptional advantages and a rigorous scientific training, Professor Morgan has gathered a wealth of illustration and argument that plays with a never-failing light about his expositions. It is not the least of the merits of the book, and certainly an unfrequent trait in any work, that the author's conclusions, even where they may be allied to the results of others or have been suggested by them, are essentially the outcome of independent thought reached in connexion with independent data. For example, his experiments with newly hatched chicks and ducklings, which in themselves constitute an invaluable psychological document, form almost entirely the empirical basis of his conclusions regarding animal instinct and intelligence, association, animal sense-experience, etc. We have before us the facts that the author had, and are placed by them in immediate touch with reality. The results of Professor Morgan's inquiries are not a little enhanced by this trustworthy mode of procedure.

Two main purposes pervade the work: first, to discuss the relation of the psychology of man to that of the higher animals; and secondly, to consider the place of consciousness in nature, the relation of psychical evolution to physical and biological evolution, in the light which comparative psychology throws on certain philosophical problems. We shall take up the second heading first, premising that the author throughout accepts evolution as the basis of his explanation of nature, including psychical nature, and that his method of interpretation is the monistic method, as that will herein be defined. In the first place, Professor Morgan's monism is resolvable into three aspects: (1) it is a monistic theory of knowledge; (2) a monistic interpretation of nature; and (3) analytic monism. According to the first, object and subject, cosmos and self are of co-ordinate reality; they are the polarised

aspects of experience as explained through reason. This does not exclude but needs as its supplement a further *hypothesis*, which, in so far as it is monistic, declares that nature is explicable; that the organism both in its biological and psychological aspects is a product of evolution; that mind is not extra-natural, nor supra-natural but an *aspect* of natural existence. According to Professor Morgan's form of monistic philosophy, the evolution which sweeps through nature is characterised by three traits: (1) it is selective; (2) it is synthetic; (3) it tends from chaos to cosmos. What this means we shall see later. The third aspect of monism is termed analytic, which declares that the true reality is the man, one and indivisible; that body and mind, object and subject, are products of *analysis*, distinguishable in thought but not separable in existence.

So far, Professor Morgan has trodden the ground of purely experiential analysis. A final step, he thinks, is necessary. That selective synthesis of the cosmos which shows itself in evolution is regarded by him as the manifestation under the conditions of time and space of an underlying activity which is the ultimate cause thereof. This underlying activity is not a product of evolution; it is that in and through which evolution both of body and mind is rendered possible. In this synthesis he seems to find "the essence of the whole process, that which makes it comprehensible or rational"—the divinity that shapes the ends of the world and which there would certainly seem to be no objection to calling God, if we had the least encouragement from the author to add such an appellation. Of this underlying activity, object and subject, as we have stated before, are correlative modes of manifestation inseparably united in experience but fundamentally distinct in aspect. Now, how has this two-faced unity had its origin? This is the problem of psychology.

It would be impossible for us to reproduce the powerful and subtle steps by which we are led up in this book to the conclusions which the author adopts, and in stating here merely the bald results we must say that much of their cogency and argumentative coloring is lost. In the first place, "the Not-self is the generalised concept of all that reflexion has taught us concerning the objective aspect of the data of sense-experience; the Self is the generalised concept of all that reflexion has taught us concerning the subjective aspect of our life experience." How has that consciousness arisen which is the symbol of this Self? What is its significance, and what is its relation to the Not-self?

We seek our point of departure in the study of the correlation of psychical phenomena with physiological phenomena. A living organism, unconscious as a fertilised ovum, passes through the conventional stages of birth, conscious maturity, and death. Here again consciousness is absent. In the ovum nothing approaching to that orderly complexity of molecular vibration which we find in the brain is present, but gradually comes with the development. In this molecular vibration, the manifestation of physical energy more than structure is important. Incidentally, we have a very significant opinion of the author here, namely, that "the problem of

"development will have to be attacked in the direction rather of energy than of structure." "Life is like a vortex in a rapid stream ;—on surrounding energy it is dependent for its continued existence ; into surrounding energy it melts away. And "this is true not only of individual life, but of life in its entirety."

Passing, now, to states of consciousness absent in the ovum but gradually becoming present in the matured organism, are we not forced by parity of reasoning to assume that they, too, have been developed from something more simple than consciousness, but of the same order of existence which answers subjectively to the simpler organic energy of the fertilised ovum. In other words, "as the complex "molecular vibrations of the brain are to the simpler molecular vibrations of the "ovum, so are the complex states of consciousness associated with the former to the "simpler states of infra-consciousness, if we may so call them, associated with the "latter. It is the association of consciousness and infra-consciousness with energy "—its objective manifestation—that is the distinguishing feature of the view which "I am endeavoring to set forth." One step remains. "We must say that all "modes of energy of whatever kind, whether organic or inorganic, have their conscious or infra-conscious aspect."

Generally three answers are possible to the question, how did consciousness come to exist? The first says, it has been specially created in man or in his ancestors ; the second, that it has been directly evolved from energy ; and the third, which is Professor Morgan's solution, and has its roots in Spinozistic thought, that it has been evolved from infra-consciousness. Now the first answer, that of special creation, says Professor Morgan, "is in my opinion a logically tenable one, and "one with which I have sincere sympathy. I do not hold it myself, because it does "not seem to me either the highest or the most probable view of the matter ; but "if others hold it on these grounds, so let it be. With the second answer I am in "distinct and direct antagonism. I do not think it has a single genuine fact of observation in its favor."

We have now to consider that *selective synthesis* of evolution of which the animate and inanimate world is the product. Looking over the development of inorganic nature, at crystals when forming, at chemical compounds when combining, and at the interruptions observable in the transitions of bodies through the solid, liquid, and gaseous states, we find in such a survey three distinctive features: "selective synthesis of a definitely determinate nature ; the controlling conditions of "the environment ; and apparent breaches of continuity in what we may term the "curve of development." Now these teachings of inorganic nature, the psychologists have interpreted in two ways. The Empiricists, laying great stress on the facts of association, do not appear to recognise an underlying law of synthesis but seem to regard consciousness as the mere spectator of a series of physiological changes in nerve-tissue. The Apperceptionists, on the other hand, regard the selective synthesis as the essential and central feature in mental development, contending, however, "that this selective activity, to which they apply the term 'ap-

"perception," is something *sui generis*, and peculiar to mind, something which is "not found elsewhere in nature." In the reconciliation of these two views lies the gist of Professor Morgan's theory. He denies the last, but affirms the first, conclusions of both Empiricists and Apperceptionists, as above stated.

To show that this selective synthesis really exists, not as a mysterious "principle," but as a legitimate inference from the observed facts, and that it is universal or common to all known aspects of nature and nowise restricted to the realm of mind, he draws a distinction between primary or intrinsic laws of nature and secondary or extrinsic laws. The primary laws of nature are inherent, constitute the active essence of the things, are the embodiment of their freedom. Thus the tendency of carbon to unite with sulphur is due to a primary or intrinsic law; their combination is, so to speak, an act of free will. Secondary or extrinsic laws are all forms of compulsion or constraint from without. Not stopping to consider here the elucidative applications of this view to the problem of free will, we must state that that "selective synthesis which we have seen to be a factor in evolution is an "intrinsic or primary law of nature; while the conditioning effects of the environment are secondary or extrinsic laws. Both are determinate, both are essentially "natural." This selective and synthetic tendency, again, is *active*, and its activity in the monistic view is regarded "as intrinsic in, and not external to, the happenings which we call 'natural'" It is this activity that has moulded the inorganic by natural processes into the organic, and the organic into mentality. Selective synthesis is of the very essence of mental development.

Speaking of variations—a subject which falls in with this discussion—Professor Morgan says: "I am inclined to believe that they are determinate, the definite products of selective synthesis, and that mental evolution proceeds along lines which "are determined by intrinsic laws of mind, just as a crystal is evolved along lines "which are determined by the intrinsic laws of crystallisation." We have not the space to follow out the author's interesting applications of this philosophical view to the solution of the questions of heredity, variation, and mental development, except to say that he regards the latter as not dependent on natural selection through elimination.

We now come to the central object of the work, but for us subsidiary. The discussion begins with a beautiful exposition of the wave of consciousness, elucidated by a diagrammatic interpretation, which is one of the author's favorite and most powerful helps. The wave of consciousness has its summit, crest, or focus, constituting that brief moment of luminous awareness, when a being feels itself in living contact with reality; all besides this is marginal. It is in this marginal body of the wave, in the setting of the focus, that we must seek the relatively abiding elements which link the successive phases of the wave into a continuum. For empirical psychology this wave of consciousness constitutes the mind; its moments are our sole experience. Consciousness has physiological conditions; on the hypothesis of scientific monism the curve of the physiological conditions is identical with the

curve of consciousness, the two being aspects only of one indivisible reality. Now, just as the wave of consciousness has its marginal or subconscious elements, so the curve of the physiological concomitants has its dominant and sub-dominant elements: and, as psychical states seem to exist which do not enter consciousness at all, and accordingly are called infra-conscious, their physiological correspondents may, by analogy, be termed infra-dominant. This is the nomenclature used throughout the book; it will be found to reflect much of its speculation.

We are now brought to the main question of comparative psychology, the interpretation of "other minds than ours." Professor Morgan here avails himself of an analogy. He imagines himself a chronometer, and asks what would be his mode of inquiry and what its results, if he should seek to interpret the horological mechanisms of other time-pieces, say one so low in the scale as the kitchen-clock. The upshot of the analogy is apparent. Its conclusion, which is adopted as the fundamental canon of interpretation in animal psychology, is stated thus: "In no case may we interpret an action as the outcome of the exercise of a higher psychical faculty, if it can be interpreted as the outcome of the exercise of one which stands lower in the psychological scale."

There are two kinds of suggestions, primary and secondary, due respectively to external and internal stimuli. When the first is in the focus of consciousness, we have an *impression*; when the second is there we have an *idea*. The first is representative, the second representative. Suggestion and association are explained by showing the vast complexity and continuousness of the wave of consciousness. Association is the sole means by which experience is made available for the guidance of animal action. Here seems to lie the germ of the much-mooted "control" of consciousness. What is inherited, Professor Morgan thinks, "is the mechanism by which an association may be established; what is a matter of individual acquisition is the association that is established."

Through a discussion of Memory, which Professor Morgan takes to be entirely desultory in animals and as not due to the perception of relations; of Impressions, where we learn that the real data of experience are states of consciousness, and that sensations are results merely of psychological analysis; of Synthesis and Correlation, etc.,—we are led to the consideration of sense-experience in animals, of automatism and control, and of instinct and intelligence, in which last connexion the well-known experiments with chicks and ducklings are introduced. Here we get at the heart of Professor Morgan's views on some of the most important psychological questions. For example, of the significance of consciousness in the control of life activities. He suggests as a possibility that there may be cerebral centres for the control of the activity of the sensory centres. He says: "In automatic acts, in so far as they are accompanied by consciousness, such consciousness is a mere spectator, but in controlled activities consciousness is more than a spectator,—it takes the helm and guides." We have also a clue here to the psychological genesis in his mind of that fundamental synthesis which lies back of all evolution and is in-

herent in all being. Let us hear his own words: "Consciousness is essentially a 'synthetic unity, and perhaps in this synthesis we may see a subjective aspect of 'that universal synthetic tendency which we discern in diverse forms throughout the objective world of nature,—a synthetic tendency which is seen alike in 'the genesis of a raindrop, of a crystal, and of the solar system; in the exquisite 'structure of the frustule of a diatom, in the form and brilliancy of a humming-bird, and in the silken gold of a maiden's hair."

By *instinct* Professor Morgan understands accurate and adequate innate capacity for motor response; by intelligence he understands the power of selective control over such motor responses. Now, intelligence as thus defined, animals have, but reasoning powers, involving the perception of relations and the conceptual thought built thereon, they have not. This subject takes up several chapters and forms the climax of the discussion.

We may note here the use of a few technical terms. For Professor Morgan the perception of relations involves the focussing of the *transition* felt as the wave of consciousness passes from object to object and thought to thought. "A percept," he says, "is an impression set in a relational background"; this usage differs from that adopted in his former work, *Animal Life and Intelligence*. A concept is a percept generalised and stripped of all particularity. Three usages of the word "idea" are distinguished: (1) as a revival of impressions; (2) as a perception of a relation; and (3) as a generalised or universal concept. In the last case it is capitalised; in the second, it is italicised; and in the first, written in ordinary Roman letters.

Professor Morgan contends now that animals, although they have a dim, subconscious awareness of relations, yet have never focussed those relations in consciousness, so as to reach percepts. This is chiefly due to the fact that they have not the power of descriptive intercommunication, though they do have powers of indicative communication. Far less, then, have they powers of conceptual thought, the faculties of the "why" and the "therefore." Again, if animals have not the power of descriptive communication, much less have they the power of explanatory communication. If they cannot focus the *what*, still less can they focus the *because*. Here it is that the canon of interpretation, stated above as determinative, is applied with success and exactitude. Professor Morgan reduces all observed and reported observations of the reasoning powers of animals to intelligence such as he defines it. His emphasis of the importance of systematic and sustained observation as the only safe basis for conclusions concerning the intelligence of animals, as opposed to untrustworthy, anecdotal reporting, is significant of his position. He says: "I am 'very far from wishing to occupy the false position of dogmatic denial of rational 'powers to animals. I think it is a subject for further and fuller investigation. 'But I do express the opinion that the fuller and more careful the investigation, 'the less is the satisfactory evidence of processes of reasoning; and that, though 'the question is still an open one, the probabilities are that animals do not reason."

We are tempted to say more of some of the minor and episodal applications

of Professor Morgan's views, for they embody a wealth of suggestiveness, but we must be content with emphasising the main points. It is only left for us to state that the perusal of the book cannot be too cordially recommended.

T. J. McCORMACK.

LEHRBUCH DER ALLGEMEINEN PSYCHOLOGIE. By *Dr. Johannes Rehmke*, o. ö. Professor der Philosophie zu Greifswald. Hamburg and Leipsic : Leopold Voss. 1894. Pp. 582.

As Professor Rehmke's views on a very important question of philosophy are discussed at length in this number of *The Monist*, we may be permitted here only to indicate in rough outlines the aims of his text-book of general psychology. It is a rather large book, but does not approach to the size of the new American treatises. Its object is to throw "light on the *general* problems that the psychic life presents and to point out broadly the path which the psychological student must follow in order to arrive at scientific clearness" on these questions. One might say it is intended more for educated amateur minds than for professional students. Accordingly, it is not overloaded with detailed discussions of special psychological questions, but attacks rather popular misapprehensions and the general philosophical aspects of the subject. In psychology, the author says, it is necessary for the inquirer also to be a philosopher, which is not the case in all other special departments of knowledge. We should rather say, he is consciously a philosopher in psychology, but unconsciously and dogmatically such in the other sciences.

The book is divided into three parts: the first treating of the nature of the soul; the second of the psychic moment or instant (*Seelen-Augenblick*); and the third of the psychic life. In the first, the philosophical questions come up for discussion; in the second the technical questions, as exploited by experimental psychology; and in the third, the questions connected with the "faculties," thought, memory, etc., and personality.

In the philosophical division the subject of the soul is first broached. All the various historical conceptions of the soul, according to Professor Rehmke, may be comprised under four general views: the ancient materialistic view of the soul as a thing; the spiritualistic view as of an incorporeal concrete; the modern materialistic view of the soul as a function of the brain; and finally the Spinozistic view of the soul as a side or aspect of man. All four lead, in the author's judgment, to indefensible results. Only the "spiritualistic" view can be regarded as a hint in the right direction, but it is not a solution for it never precisely defines what that non-thingish concrete, the soul, is.

The essence and keynote of Professor Rehmke's view are contained in his definition of the abstract and the concrete, which he regards as a most sure and fruitful instrument for the analysis of the data of the world. The "abstract" is the invariable; the "concrete" is the variable. For example, the datum of the soul is the (concrete) consciousness; and the so-called "subject" is a *moment* of consciousness,

where by "moment" is meant a *hic et nunc* (of consciousness). The author's discussion of this distinction between the abstract and the concrete, which lies at the basis of his work, is very suggestive; and the solution he offers will be apparent when we reflect that it is nothing more nor less than the purpose of abstraction to pick out and fix the invariable aspects of the fleeting world of phenomena. μрк.

MÉMOIRE ET IMAGINATION. By *Lucien Arréat*. Paris: Félix Alcan. 1895. Pages, 168. Price, frs. 2.50.

A more appropriate title for this book, the author says, would have been *La vie des images*. M. Arréat seeks to reduce the life and phenomena of imagination, first to images, and then to the organic base of images, memory. We all have memory, in some degree, but we have not all of us the same memory. We have all imagination, but not all of us the same imagination. As our images are,—that is, as our temperament, heredity, and physiological memory and environment are,—so is our imagination. This is the rule which M. Arréat seeks to establish by examining four intimately related professional types—painters, musicians, poets, and orators. He has divided this large group into sub-types, according as their memories are motor, visual, or auditive, and woven into his researches many attractive and instructive considerations. We have had occasion before to admire M. Arréat's wide acquaintance with letters, and we must praise here again the concise and skilful use which he has made of his bibliographical and literary knowledge in this extensive field. The reader will find the book replete with apt instances and anecdotes. Both on the literary and psychological side, the volume has high merits. μ.

IDEALE WELTEN IN WORT UND BILD. Reisen auf der vorder-indischen Halbinsel im Jahre 1890. Für ethnologische Studien und Sammlungszwecke. By *A. Bastian*. Berlin: Emil Felber. 1892. Pp. 289.

ZUR MYTHOLOGIE UND PSYCHOLOGIE DER NIGRITIER IN GUINEA MIT BEZUGNAHME AUF SOCIALISTISCHE ELEMENTARGEDANKEN. By *A. Bastian*. Berlin: Hoefler & Vohsen. 1894. Pp. 162.

DIE SAMOANISCHE SCHÖPFUNGS-SAGE UND ANSCHLIESSENDES AUS DER SÜDSEE. By *Adolf Bastian*. Berlin: Emil Felber. 1894. Pp. 50.

ETHNOLOGISCHES NOTIZBLATT. Herausgegeben von der Direktion des königlichen Museums für Völkerkunde in Berlin. By *A. Bastian*. Berlin: Emil Felber. 1894. Pp. 19.

There is perhaps no ethnologist living who can compare in breadth of knowledge or power of production with Prof. A. Bastian, the venerable and world-famous Director of the Berlin *Museum für Völkerkunde*. The four works listed above represent a tithe only of his recent activity, but show it in its best and in its worst features. It would be difficult to conceive a work containing more facts and really valuable ideas than that entitled "Ideal Worlds in Word and Picture," and it is to

be regretted therefore that it exhibits such a sore lack of methodical arrangement. There is absolutely no clue to the author's intentions, and the whole is one tremendous mass of interesting but unorganised facts. Added to this is an asperity and intricacy of style which renders the work almost inaccessible to readers who are not thoroughly familiar with the anfractuosités of the German syntax. In this respect Bastian is unequalled even by the worst of German writers. We shall quote merely one sentence taken at random, where, it is safe to say, the author is in his most elegant and lightest stylistic mood. There are plenty such in the work. He is speaking of the Buddhistic world-conception, and of the iron concatenation of cause and effect. The sentence is found at page 205 of the Proceedings of the Berlin Anthropological Society, April, 1894. It reads:

"Je nach den periodischen Zerstörungen,—durch Wasser (in vorübergehenden Sinthfluthen und ihren in rechtzeitig gebauter Arche geschützten Coxcox oder Noah), durch Feuer (in stoischer 'Ekpurosis'), durch Erdbeben (auf der Quichés volcanischem Boden), durch Sturm (im antillischen Huracan)—, reicht nun die Vernichtung weiter hinauf in die Rupaloka, so dass für die (nicht mehr by Stock und Stein als Fetischismus stockenden, und auch) durch den Aufblick zu (siderischen) *θεοι ὀπαροι* (in des Inca's Zweifel) noch unbefriedigten Gedankenreihen, [wenn über die Thronessel (in Chlorus' 'sede caelesti') hinüber oder neben apostolisch drittem, zweistöckigem Himmel (bei Severian) bis zu dem orthodox siebensten (auch im Islam) reichend] ein Nichts entgegengähnt (in Immaterialität der, ihrer Meditation geweihten, Terrassen),—ein Nichtsein, das (auf den Grenzen von Sat und Asat, das Regen vedischen Tad's erwartend) in Sein umzuschlagen hätte, nach philosophisch schönrednerischen Phrasen (bei Actualisirung des Potentiellen)."

Compulsory courses in such rhetorical antics would set at rest forever the debates on the relative merits of language and science study. But with all these drawbacks the works of Professor Bastian are indispensable to ethnologists, constituting the sources of the subject as gathered by a man of sure perceptions and uncommon scientific abilities. The historical student and general reader, however, will have to wait until most of it is elaborated in a different and more intelligible form.

T. J. McC.

SYSTEMATISCHE PHYLOGENIE DER PROTISTEN UND PFLANZEN. By *Ernst Haeckel*.
Berlin: Georg Reimer. 1894. Pages, 400. Price, M. 10.

The fundamental idea of a general phylogeny of the world of organic forms was broached by Professor Haeckel in 1866 in his *General Morphology*, and shortly afterwards developed in a more popular form in his *Natural History of Creation*. As the phylogenetic materials were scanty at that period, the author's researches were limited to the merest outlines of a history of the race; in the necessity of the case a rigorous scientific demonstration was impossible. The author now attempts such a demonstration, in the light of the materials recently furnished by palæon-

tology, ontogeny, and morphology. Thus, the reader will find incorporated here the results of thirty years of fruitful research.

Professor Haeckel's point of view has remained practically the same as when he first promulgated the idea. It is his aim to reach a scientific knowledge of the organic forms and of the causes that produce them by a study of the causal relations obtaining between phylogeny and ontogeny, the history of the race and the history of the individual. As is well known, he vigorously opposes the new theories of embryology and heredity, upholding in contradistinction to the latter the doctrine of progressive inheritance. There is much philosophical discussion and speculation in the work, as must be, for phylogeny, like historical biology, is a hypothetical science and can never hope to gain access to all the materials that would verify its conjectures. The tables of descent and the genealogical trees which Professor Haeckel has traced out are for this reason not put forward as perfected and rigid plans, but are to be taken simply as attempts at a reconstruction of ancestral history, and as indicating the way in which, according to our present knowledge, future phylogenetic research is perhaps to be best conducted. In cases of doubt, parallel hypotheses have been suggested.

The present work is not a text-book, but presupposes considerable knowledge of natural history on the part of its readers. Nevertheless, Professor Haeckel's style is delightfully lucid, and what with his explicit explanations of new terms and his profuse use of diagrams and counter-references, the intelligent reader who has access to a good compendium of natural history will not only have no difficulty, but will experience considerable pleasure, in the perusal of portions of this work. The volume before us treats of Protists and Plants, and is to be followed before the close of the year by the two other parts on vertebrate and invertebrate animals. A number of the most important sections of the present volume have been translated and are appearing in the current numbers of *The Open Court*. μ.

PSYCHO-THÉRAPIE. By *Doctors A. W. Van Renterghem and F. Van Eeden*. Paris: Société d'éditions scientifiques, 4 Rue Antoine Dubois. 1894. Pages, 291. Price, frs. 7.50.

By psychotherapy the authors understand not exclusively hypnotism, but the art of curing by psychical means generally. They claim that their work, as contained in this report of the Suggestive Clinic of Amsterdam, has yielded satisfactory results, notwithstanding the brief period of the existence of this branch of methodical medicine, and the opposition which it has met with in professional quarters. They point, it is said, to a fundamental revision of the principles of therapeutics. The book, which is addressed mainly to the medical public, consists of a complete statistical record of clinical observations made in the Clinic of Amsterdam from 1889 to 1893. The authors discuss in the introduction the general principles of therapeutics and some important fundamental biological problems. μ.

VERBRECHEN UND WAHSINN BEIM WEIBE. Mit Ausblicken auf die Criminal-Anthropologie überhaupt. Klinisch-statistische, anthropologisch-biologische und craniologische Untersuchungen. By *Dr. Med. Paul Näcke*. Vienna and Leipsic: Wilhelm Braumüller. 1894. Pp. 257.

This work appeals primarily to psychiatrists and physicians only; but the questions which it touches are of grave import, affecting every profession and stratum of society. Amid all the intellectual and material advances of our epoch, crime and animality, instead of giving way before the general progress, have only increased in violence and intensity. The conditions of this deplorable state of things lie deep in the structure of the modern social organism, and it is the purpose of this book to contribute something towards the discovery of those conditions by the scientific method, as that has been applied in the asylums, prisons, hospitals, and schools. All this work is beginning to have its effect on legislation, which will be more effective the surer the foundations which criminology and psychiatry supply it. Dr. Näcke's book is devoted, as its title states, to crime and insanity in woman, discussing the subject under all forms and as developed by all the new anthropological and criminological methods. As Dr. Näcke has attained a recognised place in this department of research as a careful and trusty investigator, his researches will have high value and usefulness for the specialists of this department, and for all writers who now and then find it necessary to consult sources.

μ.

UNSERE GEWISSHEIT VON DER AUSSENWELT. Ein Wort an die Gebildeten unserer Zeit. By *Dr. Johannes Rehmke*, o. ö. Professor der Philosophie in Greifswald. Heilbronn: Eugen Salzer. 1894. Pp., 47.

Prof. Johannes Rehmke's lecture on "Our Certainty of the Outer World," which has already reached its third edition, is a thoughtful investigation of one of the most fascinating of philosophical problems. The Professor argues: The problem whether the outer world exists or not is puzzling, for it strikes unsophisticated thinkers as being no genuine problem; we are inclined to add that they are perhaps after all right. We deem the pamphlet worthy of a synopsis of its arguments.

The outer world is to those untrained in philosophical questions identical with the space-given data of our experience, which are contrasted with our self, the soul, or the ego. Our body forms a middle position, but has consistently to be classed together with the outer world. To the thinkers of classical antiquity this problem of the reality of the outer world did not as yet exist; it was first produced by the emphasis which the Christian world-conception places upon the soul. The self-assurance of the soul makes it difficult for us to find our way to the reality of the space-given objectivity, and in this sense St. Augustine prepares the way for Descartes's universal doubt of reality. The *cogito ergo sum* is the result of the Christian idea of the all-importance of the soul. The thinkers of antiquity looked outward to observe nature. The Christian looks inward and finds in the soul the starting-point of all philosophy.

Shall we consider reality as a product of the soul, and the self-made spook of our thoughts, which is the ultimate consequence of the Cartesian doubt? Or, shall we, after a purely theoretical skepsis, return to our belief in reality on the crooked way of a fallacy? There are many thinkers who merely play with their doubts, and are in the end satisfied to justify their belief with sham arguments. The trouble with the problem is, that the source of the quandary lies in the premises. If we consider the soul alone as given, we cannot from its purely psychical nature deduce reality. We move in a circle, and Kant drew the last conclusion by showing the ideality of space. According to his *Critique* we must distinguish between the outer world and space, for he deprived the outer world of spatial extension, which he regarded as a pure product of the representation of the soul. Thus no one can get out of himself, indeed, nothing out of itself. And the idea of the outer world would only be due to our imagination. It would be like the *processus vermiciformis*, a rudiment of former periods of our evolution. Modern thinkers, men like Helmholtz and Zeller, appreciate the futility of proving the existence of the outer world and regain it indirectly. They maintain that sensations must have a cause which does not lie within us, and must be sought without. But is not this a *petitio principii*? For the very notion of them is assumed, and this indirect way of recuperating reality is inadmissible. The sense of resistance becomes possible only through a consciousness of the outer world.

Professor Rehmke solves the problem by declaring that the idealistic psychological standpoint is suicidal. Every one must recognise "the fact that even the keenest thinker cannot get rid of the outer world." "The outer world is as much *immediately given* as our own self, and we are *immediately conscious of it*" (p. 33). This conclusion is corroborated by the statement that "the outer world, being immediately certain, has this in common with the soul that its reality cannot be proved" (p. 34), and it is emphasised by repeated affirmations such as *selbstverständlich* (pp. 34 and 37) and *zweifelloos klar* (p. 36). The cause of the trouble, the Professor says, lies in the wrong conceptions of the soul as something that exists in itself. Soul is neither a spatial being animating the body, nor a function of the brain. It is immaterial, and we must be consistent in thinking the idea of the immateriality of the soul. Soul is unspatial; it is nowhere. If it had its seat in the body or somewhere in space, it could not be soul. Outer world and inner world are two abstract pieces of the one world which the soul has in its possession.

It is possible that we should upon the whole agree with Professor Rehmke's arguments and solution, if we could make sure that we understand his terms as he means to use them; but we should express and present them in a different way. There are, however, a few points which make us doubt whether the disagreement is purely verbal.

We would indeed join the unsophisticated in saying that the question as to the reality of the outer world is indeed a wrongly formulated problem, which to show its futility might be formulated in the words, "Is reality real?" The term "real-

ity" has reference to the condition under which certain sensations originate. The questions as to the uniformity of the laws of reality and as to its attributes, whether it is intrinsically material, or spatial, or spiritual, has nothing directly to do with the problem of the outer world, and is of a more complicated nature. The space-world of our imagination is our method of representing reality; it is that which is meant when a sentient being, by a resistance of some kind, feels its own limitation. There is neither outerness nor innerness of the world, but the outer and the inner are mere aspects. A fraction of existence, called *A*, if viewed from *A* is called the soul aspect or innerness; if viewed from some other standpoint, say from *B*, it is called body or outerness. Soul, it is true, is in a certain sense, as Professor Rehmke maintains, nowhere. But this paradox simply means that from the abstract soul the idea of space is excluded. The ideas which I read in Professor Rehmke's pamphlet, are for the same reason and in the same sense, nowhere; nevertheless, the words which they express are to be found on these printed pages. The ideas as such are unspatial, but the words in which they manifest themselves are either moving in brain substance or vibrating through the air, or appear as black specks of peculiar forms on paper. Thus the brain structures which are agitated while ideas are thought exist in the body and are a part of the body. In this sense, the idea of the nullibiety, or nowhere-ness, of the soul is quite correct, and there is no mysticism about it.

The reader of Professor Rehmke's lecture cannot help thinking that if the outer world is after all an "immediately given fact," the whole investigation is futile, as Mephistopheles says in *Faust*, "*Wozu der Lärm*"; and the standpoint of the ancients, who did not know of the problem, would after all be justified, and indeed there is a truth in this idea which I suppose Professor Rehmke will not deny. The question is not whether reality is real, but, What is the proper definition of reality?

The idea of reality is unthinkable without resistance; indeed, it is a synonym of resistance, and resistance felt is only another name for experience, which is the basis of our psychic activity and the source of all our knowledge. Resistance felt is called sensation. If a sensation takes place, the sensation is real, it is a fact, and sensations alone are immediately given facts.

Every sensation leaves (as we learn from physiology) in the sentient substance a vestige which is preserved, and which when irritated causes a repetition of the original feeling—a condition which is called memory. When another sensation of the same kind as the first one takes place in the same sentient substance, it enters the memory vestige of its predecessor and revives it. This act is, according to the late Romanes, most appropriately called reception, and the second sensation thus becomes a recept. By reception a new psychic phenomenon is created, for the sameness of the two sensations (be it ever so dimly) begins to be perceived; it becomes a percept which indicates the presence of the conditions of a sensation. This additional element, the representativeness or symbolic nature of sensations, is the life of the soul. Now when we speak of reality we mean facts, viz., sensations, i.e.

immediately given facts, or such conditions as by resistance will directly or indirectly produce sensations; and when we speak of something as being "unreal," we mean that the meaning of some psychical symbol, of a sensation, or of an idea is the product of a fallacy. The sensation of a red object leaves a blue after-image. The red-sensation is real, and the blue-sensation of the after-image is real, for both are immediately given facts. The percept of a red body is also real, for it means that conditions exist which by contact, viz., through resistance of some kind, will produce certain other sensations. When the red object is touched, the anticipation is verified, or, as we say, "realised"; but when attempts are made to grasp the blue object, our anticipation is deluded and there are no such conditions as were supposed to exist: in brief, the blue object is unreal. Bodily existence, i. e., matter moving in space, or outerness, is the mode by which reality or resistance is represented. Bodily existence, or matter moving in space, accordingly, is not the real world, but reality as it appears to sentiency; it is one aspect only which may be called the outerness of being.

Professor Rehmke leaves some doubts in the soul of his reader, not only (as we have indicated above) as to the soundness of the solution of his problem, but also on other subjects which are touched upon incidentally. Professor Rehmke says: "Every thing is only itself" (p. 39), which is used as an argument to refute the idea that the body could contain in it the soul. Nevertheless, he makes the soul contain the world, and the world consists, according to him, of things as well as of feelings and impulses. (P. 43.) Thus he would after all either have to accept the idealistic solution, so vigorously rejected by him, or must spite his own logic and declare that "everything is not always only itself, for the soul contains the world together with its own brain and possesses as one of its parts the material bodily reality."

We have given so much space to this small pamphlet, because it is suggestive and many expositions are well put. Moreover, the problem itself is of importance and its treatment affords a good touchstone for the value of a philosophy. P. C.

ALLGEMEINE GESCHICHTE DER PHILOSOPHIE. MIT BESONDERER BERÜCKSICHTIGUNG DER RELIGIONEN. By *Dr. Paul Deussen*, Professor in the University of Kiel. Leipzig: F. A. Brockhaus. 1894. Pages, 336. Price, M. 7.

Prof. Paul Deussen's work is a new departure in writing the history of philosophy; before us lies only the first part of the first volume, but the Introduction and the Prospectus explain the plan of the book, and the treatment of the first instalment is very promising and sufficient evidence of the author's ability to cope with all difficulties. The work will not only be more voluminous than any prior book of the same kind (it will comprise six volumes and may take years until it is completed), but it is also designed on a broader plan. It is the author's intention to widen the scope of his task in two ways. First, he generalises the idea of philosophy so as to include religion; and, secondly, he does not limit himself to the

Western world, but gives an exposition also of the philosophical evolution of the East. In addition, he proposes to attempt "a revision of philosophical and religious doctrines by the facts of nature and life on the basis of which they have originated." The whole plan is unquestionably good and shows that the author has read the signs of the time.

The old histories of philosophy present the evolution of our own philosophical thought only, and consider the philosophies of other nations merely in so far as they have influenced us. A comparative view which would discover the laws of philosophical evolution does not in this way appear possible. Deussen is very well aware of the advantage which our knowledge of the East Asiatic philosophies will afford us. He says:

"Their main value to us who have been educated in the classic antiquity of Greece and the Bible lies in their radical difference from, and independence of, the Occidental mode of thinking. Indeed, it remains to be seen whether and how far a sufficient knowledge of Indian wisdom will produce a revolution in the religious and philosophical thought of the Occident, which will affect it not so much on the surface as in its very essence. Any one who has had occasion to be in personal contact with Indian thinkers and sages of the present time will have been especially surprised by the observation that in spite of their keenness, profundity, and extended knowledge, they move within extremely narrow limits and are confined to a one-sided conception without knowing it. Who can say whether a similar one-sidedness and limitation are not attached to ourselves and to the traditional ideas in which we have grown up. And it may very well be that we can learn, albeit in a different way, as well from the Hindus as they have to learn from us."

There are many thinkers of prominence who declare that a radical difference obtains between ethics and religion, science and religion, and philosophy and religion; they are not aware of the fact that the religion of a man colors his entire being; be it for good or evil, it influences his science, it permeates his philosophy, and it finds expression in his conduct. Indeed, every religion is a popular philosophy, and every philosophy, if but the philosopher is serious in his convictions, is a religion. Both religions and philosophies are world-conceptions applied to practical life. There is one difference only: religion is a philosophy indorsed by a great number of people, while philosophy is the world-view of a single thinker. Dogmas and mystical speculations may appear strange to a scientist whose attention has been limited to the field of his specialty. And a child of these latter days of the nineteenth century is inclined to think that such abstrusities should have no place in the history of philosophy. But we must bear in mind that they are attempts to comprehend something that possesses not only in the mystic's mind, but also in this real world of experience an unquestionable reality. Visions of a Jacob Boehme are expressions of his living experiences, indicating the presence of very important facts which in the shape of a dream become tangible; but they certainly well up from the deepest depths of their author's soul. Says Professor Deussen:

"We should have to omit the very best of that which we are, however, should we exclude the religious element from our consideration. Consider only that everywhere, in India as well as in Greece, and also among us at the present time, the most vital and fruitful germs from which philosophy grows have been prepared in the soil of religion. Indeed, up to recent times, philosophy in a good as well as in a bad sense stands scarcely less under the influence of religious than of philosophical tradition. Every attempt to understand the present state of philosophy in its roots leads us back as much to Jesus and Paul as to Plato and Aristotle."

As to Professor Deussen's promise to "revise the philosophical and religious doctrines by the facts of nature and life on the ground of which they have originated," we are as yet doubtful what he means. A revision of our philosophy and religion is needed on the basis of the facts of nature, which means that we have to reconstruct philosophy and to reconsider the value of former speculations on the basis of science. This, however, it appears Professor Deussen does not do; his revision seems to be purely historical, being a critical inquisition into the civilisation, climatic influences, etc., etc.

We hail Deussen's enterprise because we believe that a work wrought out on this new plan, which broadens as well as deepens the significance of philosophy, is much needed, and we expect that the old facts, when seen in a larger connexion, will appear in a new light. But we are sorry to notice that in one point Professor Deussen does not appear to see the problem of modern philosophy clearly. He is not yet prepared to seek the well-springs of philosophy in experience alone, taking here experience in the broadest sense of the word, including in it the inner and the outer, the concrete and the abstract, the sensory and the purely formal. To Professor Deussen, philosophy is still "the search for the thing-in-itself," and its most essential characteristic is, in his opinion, to supply a *principle* from which the world and its phenomena may be comprehended. In a word, he places philosophy outside of the sciences and above them. He does not use the word "super-scientific," but he virtually makes philosophy super-scientific, by saying, that "while all other sciences are physical, philosophy is metaphysical."

Professor Deussen leaves us in the lurch as to his meaning of the word "metaphysical." For on the one hand he declares that philosophy "does not go beyond experience in a transcendent way, but penetrates it in order to seize its kernel." This passage indicates that his "metaphysical" must be conceived of as a part of experience, as something that is to be found *in* experience, constituting its most essential element. On the other hand he says: "We meet with a striking peculiarity common to all elaborate philosophical systems, that they find it necessary to propound a *principle* from which they attempt in various ways to comprehend the existence of the world and its phenomena."

This principle, which, in our opinion, must be derived from experience, appears, according to Deussen, to lie beyond experience, for he takes it to be "a most

"essential feature that philosophy regards the totality of empirical reality—howsoever clearly it may lie before our eyes—as something which is in need of a *still further explanation*; it regards it as a problem demanding a solution, which means "that it points beyond itself."

From our standpoint, the solution of a problem can never point beyond itself, but must be derived from the field of our inquiry. It may be necessary to enlarge the field of our inquiry in order to attain a solution. It may also be necessary to complete the field of our inquiry, if a survey of all intercoherent facts is impossible, by the assumption of hypothetical facts, the reliability of which may be more or less doubtful. But under all circumstances a principle of explanation must be contained in the facts to be explained. That which is hidden must be made visible. That which is obscured must be brought into light. The material of our experience must be worked out and systematised, but any attempt at seeking for a principle that leads beyond experience will involve us into mysticism, dualism, or agnosticism.

In corroboration of his definition of philosophy, Professor Deussen quotes the "principles" proposed by various systems: the *âtman* of the Vedânta, the *prakriti* and *purusha* of the *sâñkhyam*, the *tâo* of Lâo-tsze, the *ἀρετὴ μὲν* of the Pythagoreans, the unknowable thing-in-itself of Kant, Fichte's *ego*, Schopenhauer's will, and the idea of matter of the materialists. Granted that many philosophers actually seek for a principle of explanation that points beyond itself and would have to be considered as foreign to the reality such as we perceive it in experience, we cannot say that this aspiration is characteristic of all philosophy, and the editors of *The Monist* would have to deny their own view the name of philosophy.

Professor Deussen says that the history of philosophy is to some, eternal truth kaleidoscopically reflected in the glass of genius, while to others it is the repertory of the various errors of the human reason, a superfluity which they would discard if they did not respect the accounts of them as historical facts. Professor Deussen himself takes another view. He says:

"He who with his eyes can see the horse only and not horsehood [referring to the well-known passage,¹ ἵππον μὲν ὁρῶ, ἵπποτῆτα δὲ οὐχ ὁρῶ] cannot be helped even by a Plato redivivus, but much can be done to disperse the fog which from birth lies upon the eyes of us all, so that we shall see things not merely empirically, that is, from the highly one-sided observatorium of our own intellect, but be led to a higher standpoint, from which we can view intellect and nature in their mutual counter-operations—which at bottom is the gist of all philosophy. Collating, sifting, and combining the records is not sufficient, still less, mere reflexion, critical analysis, and vituperation. All these things are at best a mere *μύησις* through which we must come to an *ἐποικεία*, an inner intuition; and the nearest and most urgent aim of the

¹*Simplic. in Arist. Categ., scholia*, ed. Brandis, p. 66, v. 46.

history of philosophy is to show us the nature of things, internal as well as external, with the eyes of every single philosopher."

So far we perfectly agree with Professor Deussen. We also see in things not isolated items, but parts of a whole, the interrelations of which manifest the omnipresence of the same cosmic order throughout. The forms of things are real and the *ἰσπότης* is that which constitutes the *ἰσπος*. But we deny that the *ἰσπότης* is a thing in itself; it is a part of the real world and must be understood as such.

We certainly do not slight Kant when we reject his conception of a thing-in-itself, and we also understand that the ultimate principles of explanation, which appear to many philosophers as transcendent entities, are in their systems a kind of internal adytum, a *sanctum sanctissimum*, where, to a great extent, (as in religious dogmas and the speculation of mystics,) intuition takes the place of intellection. We even respect the awe of a Kant and also of other minds of a smaller compass, who when confronted with the difficulties of these ultimate questions, give up the solution and utter unintelligible words on the transcendency of the object of their investigation. But for that reason we must not be frightened away from attempting to understand the nature of the metaphysical, so called, which we find to be a part of experience, and not something that points beyond reality. We may admire Kant's philosophy, and yet find ourselves obliged to discard the most favorite ideas of his, which are the incomprehensibility of the thing-in-itself, and the very notion of the thing-in-itselfness of things.¹

Taking this ground, we do not agree with Professor Deussen's idea, that if philosophy existed on other stars that its final outcome would be there, as here on earth, the recognition of limits drawn by nature herself, for we do not believe that, little though we may know, nature draws any limits to either a scientific or a philosophical insight. Nature is intelligible so far as our contact with nature goes. And if there are limits, they are drawn by us. Still less can we concede that man's mind will actually find satisfaction in the oppressive idea of the unsurmountability of the limits of comprehension. Yet, when Professor Deussen comes to speak of the practical application of philosophy, saying that when considering the means by which to satisfy the inborn instinct of a pursuit of happiness they will inevitably come to the conclusion that the highest aim of man will not be the satisfaction of this instinct, but its conquest, and a deliverance from the fetters which the insatiable desire for pleasure imposes upon us (p. 7).

The preliminary plan of Professor Deussen's work is to discuss (1) Indian Philosophy, (2) Greek Philosophy, (3) The Philosophy of the Bible, (4) The Philosophy of the Middle Ages, and (5) Modern Philosophy, the latter being divided into three periods. The first of them (1400-1600) comprises the Reformation and the over-

¹ As to the views of the editor of *The Monist* on Kant's position, we refer the reader to the article "Are there Things in Themselves" (*The Monist*, Vol. II, No. 2). Another editorial article on the rôle which the metaphysical *x* plays in cognition will probably appear in the next number of *The Monist*.

throw of Aristotle's authority; the second reaches from Cartesius to Kant (1641-1781); the third from Kant to the present day.

Considering the ethical valuation of a conquest of the desire for happiness, we are surprised to find that Buddhism receives but slight attention. It is mentioned twice only in the announcement of the general plans in Chapter V. of Part III. of the first volume among the heterodox systems of Brahmanism and in the fourth chapter of the appendix of the first part as one of the three great Chinese religions.

The difference between Professor Deussen's and our own views will not be of great importance in the history of the ancient systems, but it will be more apparent in the last, and as yet unpublished, portion of his work. Professor Deussen says of this last period in the general introduction (pp. 20-22):

"It was Kant who after so many vagaries of human thought proposed the question, whether we have at all in human reason a fit tool to transcend experience "and to discover any tenable propositions concerning such transcendent objects as "soul and God."

Kant, in our opinion, was right in denying to the faculty of reason the power of transcending experience, but we will add that this feat is not required of reason. Reason is a fit tool to extend experience, to deepen its significance, to systematise its data and arrange them for a handy application to practical life. The ideas God and soul, if considered as transcendental objects are empty metaphysical speculations without any practical value, and, indeed, being *ex hypothesi* transcendent, also without any theoretical value. We do not find them in our experience and can safely say that we know nothing of them; therefore we need not bother about their existence. Whether transcendent existences exist or not, affects us in no way. We shall see, however, that the terms God and soul have been invented to denote some most important features of reality, such as we find in experience, but in this latter sense they are neither transcendent, nor metaphysical, nor unknowable, but form, whatever name we may give them, the daily bread of our intellectual, moral, and emotional life. Kant when investigating in his *Critique of Practical Reason* the part our ideas of soul, of cosmic unity, and God play in our moral aspirations, left the most important part of the philosophical problem which he attacked, as he found it. The fallacies of metaphysicism he put down as paralogisms of reason herself and sanctified them for practical purposes in the shape in which our religious traditions had cast them. Instead of keeping two contradictory accounts, one for theoretical and the other for practical reason, he should have proceeded to purify the meaning of these practical ideas in the furnace of pure reason. By the elimination of their metaphysical interpretation he could have reduced them to their proper significance in practical life, and would thus have at once corrected the error and explained its origin. This work, left undone by our great master, is the task we have set ourselves to accomplish.

Deussen continues:

"His investigation into the nature of reason induced Kant to subject the whole

"apparatus of cognition to an unprecedented critique and examination, the result
 "of which was the indubitable proof that it was impossible to go beyond experience,
 "and at the same time a radical destruction of all speculations concerning soul, the
 "world-totality, and God. On this occasion Kant made the greatest of all discov-
 "eries which ever was made in our science, viz., that certain portions of empirical
 "reality which we naturally regard as belonging to the outer world, space, time,
 "and causality, are in fact nothing but inborn forms of our own faculty of cogni-
 "tion."

The reviewer's own mind has been trained in the school of Kant, and he re-
 veres him as the master at whose feet he sat. Nevertheless, he regards this so-called
 greatest of all discoveries as a great mistake,—*great* in the best sense of the word.
 It is a grand mistake because it was due to the boldness of a great thinker who took
 the consequence of an error seriously and dared to think out its consequences. Kant
 courageously drew the inferences of his error in spite of their absurdity. In the
 opinion of the reviewer, Kant was right in his distinction between the *a priori* and
 the *a posteriori*, but he was wrong in attributing the former exclusively to the subjec-
 tivity of our mental conceptions. All the *a priori* sciences are ideal, as Kant says,
 but Kant uses the word "ideal" in the sense of subjective, and this confusion of
 ideality and subjectivity is the error hidden in the foundation of his philosophy.
 And Schiller says :

"Let but an error be hid in the stone of foundation; the builder
 Buildeth with confidence on: never the error is found."

Kant being unable to derive the *a priori* from experience which he unfortu-
 nately limits to and identifies with the *a posteriori* or the sense-element of experi-
 ence, seeks his principle of explanation beyond experience in "the thing in itself,"
 and Deussen accepts Kant's position. He says :

"The consequence of Kant's great discovery was that the world, such as we
 "know it, viz., extended in time and space and regulated by causality, is in this its
 "form a mere phenomenon and not a thing-in-itself."

Kant leaves us in doubt, and Professor Deussen will probably not be able to
 explain to us what Kant really meant by thing-in-itself. It may mean (1) the object
 as it is independent of sensation, or (2) the object as it would be in itself, i. e., the
 object's subjectivity; what we might call the soul of the object; or perhaps (3) the
 metaphysical condition of physical existence, the *raison d'être* of being and its ulti-
 mate ground. The cognition of the thing-in-itself in the first sense, is the domain
 of science. The objective reality which produces the subjective phenomenon of a
 rainbow is by physics supposed to be a certain refraction of ether-waves. The
 colors of the rainbow are a phenomenon that exists in the eye only; but the ether-
 vibrations are an objective process which is supposed to take place whether or not
 any eye perceives it. The thing-in-itself in the first sense is not incomprehensible.
 As to the thing-in-itself in the second sense, which is the subjectivity of the objec-
 tive existence, we must bear in mind that it stands to its sense-perceptible existence,

as a material object appearing in time and space, in the same relation as our soul stands to our body, and we have good reasons to believe that its nature exactly corresponds to the structure of its bodily appearance, so that in lower animals it is as different from man's soul as is the animal organism from the human organism; while in inorganic nature it is on a still lower plane. Finally, the thing-in-itself in the third sense is perhaps not different from the thing-in-itself in the second sense; for we are justified in assuming that what we commonly call the soul of man is the core of his being which manifests itself in his bodily appearance. To invent in addition a metaphysical principle, whether we call it with Fichte the ego, or with Spinoza substance, or with Jacob Böhme God, or with Schopenhauer the will, is perfectly gratuitous. All these terms are names originally invented to define a certain part of existence which is felt to be of great importance and may allegorically be called the innermost kernel of being; but as soon as they are supposed to lead beyond experience into a transcendent sphere, we enter the realm of dreams. So far as these ideas denote a feature of our real experience they are helpful, but as soon as they assume the existence of extra-experiential entities they are redundant, and we can very well do without them. Our soul is real enough such as it appears in the facts of life, and God is great enough such as we comprehend him, as the superpersonal omnipresence in the universe constituting the ultimate authority of moral conduct. According to Deussen:

" Kant considered the essence of the thing-in-itself as theoretically unknowable, yet he opened upon it in the second and practical part of his philosophy an outlook by referring moral action to an *a priori* innate moral law which he called a categorical imperative, and this he declared to be the law which man as a thing-in-itself prescribes to man as a phenomenon."

Mentioning among the successors of Kant such men as Fichte, Schelling, Hegel, and Herbart, who "hoped to overcome in an offhand way the difficulties discovered by Kant," Deussen adds:

" In opposition to them, Schopenhauer attempts to comprehend Kant thoroughly, and to free his doctrine from the weeds of misunderstood traditions. Upon this foundation he applies Kant's ideas, in the direction pointed out by himself, in such a way as to make Kant the founder, and Schopenhauer the perfecter of a unitary metaphysical system built upon experience alone, and thoroughly consistent in itself. As such it appears in its practical part as a Christianity which in its full profundity is renewed upon a scientific basis, to remain, as far as can be foreseen for the ages to come the foundation of all scientific and religious thought of mankind."

Schopenhauer and Kant are both great, and we regard a study of their works as the indispensable school through which the philosophers of the future will have to go, but we cannot share this opinion of Professor Deussen, who, we are firmly convinced overlooks the great errors which these masters of thought have propounded.

As to the contents of the first part of Professor Deussen's general history of philosophy we can be brief. After an introduction into the historical conditions of philosophical India, he discusses in the first part the old Vedic civilisation and religion. The origin of philosophy begins with the commencement of doubt, and leads to the first dawn of the idea of cosmic unity, to speculations on the origin of the world, and also to the seeking after the unknown God which aspiration manifests itself in the Prajâpati hymn and other religio-philosophical poetry. The second period is the age in which the Brahmanas were written, and we observe how in an evolutionary progress the Indian mind finds a solution of the world-problem first in the mythological idea of Prajâpati, then in the ritual conception of Brahman, and at last in the philosophical theory of the âtman. As Professor Deussen, the author of the *System of the Vedânta*, is one of the best authorities on the history of Indian thought, it would be bold to make any critical remarks, the more so as the presentation of the subject is at once clear and concise.¹ We have here, in about three hundred pages, the matured *résumé* of all that has been heretofore written on the subject by the author as well as by other Sanskrit scholars. We need not add that this great picture of the evolution of Indian thought is as grand as it is interesting, and will, aside from its connexion in the general history of philosophy, be welcome to many who desire to have an authoritative and precise presentation of the subject.

P. C.

DIE PRINZIPIEN DER MECHANIK. In neuem Zusammenhange dargestellt von Heinrich Hertz. Mit einem Vorworte von H. von Helmholtz. Leipsic : J. A. Barth. 1894. Pages, 312. Price, M. 12.

A melancholy interest attaches to this work. Its brilliant author who had little more than begun his scientific career, but in that beginning achieved so much, died shortly before its completion in his thirty-sixth year; and not long afterwards, his master, Helmholtz, with whom his scientific and personal relations had been so intimate, and who supplied a preface to the book, that is not the least of its attractions, followed him. Hertz's *Mechanics* represents the fruits of the last three working years of his life, and he worked until its close. The first part of the performance had, on the author's death, already received its definitive form; the second was completed in all essential points and was only waiting a final revision: this was left to Mr. Ph. Lenard, who fulfilled the task in accordance with the author's wishes.

In a charming Preface, filled with profound *aperçus* into the psychological genesis of scientific thought, Helmholtz sketches the career of Hertz, telling us what

¹ The problem of a proper transcription of names and terms is still unsolved. It would be a blessing if our Sanskrit scholars could at last come to an agreement on the subject. In Professor Deussen's transcription of Indian names, all masculine nouns end in *a*, all feminine nouns in *â*, and all neuters in *am*. This may be convenient for German readers, who have still to bother about the three genders, but the method is inconsistent, as in this way neuters appear in their nominative forms, while the words of masculine gender are transcribed in their stem-forms.

made him so peculiarly fitted for his task, what his education had been, and by what preliminary work he had been led to his celebrated electrical discoveries. We see here what a genial character his was, and shall find that the influences which shaped his career in the branch that made him famous also left their impress upon his thought as it is embodied in the work before us.

The present work is important mainly in two directions. First, as a *philosophical discussion* of the principles at the basis of theoretical mechanics; and, secondly, as an attempt to *re-model* logically and æsthetically those principles, as contradistinguished from the practical working-rules of the science, which, as they already serve their appointed purposes, are left untouched. Whatever shall be its ultimate fate as fulfilling the conditions required in the last-mentioned attempt, its significance in the first cannot be overrated. Hertz's philosophical introduction has all the marks of candor and sincerity which distinguished his earlier performances, and which he possesses in common with most great inquirers of the first rank. As Helmholtz says, we possess few records of the inner psychological history of science that are comparable with them. To this philosophical introduction, therefore,—and this is the only side on which Hertz claims originality,—we shall devote the chief space of this review, reserving only a few remarks for the mathematical and technical form of the new system. The philosophical assumptions at the basis of scientific method lie nearer to the heart of their work than many inquirers imagine; the very repudiation of metaphysical speculations, now so common in physical treatises, constitutes, itself, a metaphysical assumption demanding verification, and involves, expressed or not, a special philosophy.

But first a word with respect to influences. In all that relates to the formal complexion and mathematical execution of his plan, Hertz owes his first stimulus to Helmholtz. Next to Helmholtz the English influence is noticeable, and naturally, for under that influence his renowned electrical researches began. In the philosophical direction his views have been powerfully influenced by Prof. Ernst Mach; in a general way they lean toward the Kantian standpoint, though embodying features of various, and even opposed, schools.

The author begins by inquiring what are the criteria of sufficient or adequate knowledge. The fundamental object of all natural knowledge, he says, is to enable us to predict future events, with a view of controlling our conduct. The means by which we foretell futurity is present or previous knowledge. The method is this. We construct for ourselves inward images, pictures, or symbols of outward objects, so fashioned that the results that follow logically and necessarily from the images are in turn always images of the results flowing naturally and necessarily from the objects. This presupposes a determinate correspondence between nature and the mind, which experience teaches us exists. Having sketched out, or had given to us, such pictures, we can reproduce by them, just as we should by models, in a short period of time, events that in the outward world take long periods of time to happen in.

Now, that such pictures should fulfil their purposes what must be their attributes—what is required of them? Different pictures of the same object are possible. What gives to any one preference over any other? Hertz says, we should refuse *ab initio* to admit pictures which in any form involve contradictions against the laws of thought. In a word, our pictures should all be *logically* admissible. This is the first criterion, and we shall refer to it henceforward as self-consistency or *admissibility*.

Secondly, our pictures should be *correct*; their essential relations should accord with the relations of outward things. Thirdly, two self-consistent and correct pictures of the same outward object may differ with respect to *appropriateness*. That picture of the same object is the most appropriate, the most fit, which mimics the most essential features of the object. Where all are equally distinct, that picture is most fit which contains fewest superfluous features—which is simplest. But this last requirement is never ideally fulfilled.

With respect to the scientific or methodological presentment of the pictures, the requirements take a slightly different shape. Such a presentment must show distinctly what properties the pictures have been invested with to secure admissibility, what to secure correctness, and what to secure appropriateness. Only in such a way are we rendered perfect masters of our mental portrait gallery and enabled to change and improve it. For appropriateness sake, terms, definitions, abbreviations are added. This class includes all arbitrary features. The experiential elements constitute the aspect designated correctness. The attributes of rational thought supply the conditions of admissibility.

Whether a picture is admissible or not we can decide *a priori* once for all; whether a picture is correct or not, can be ascertained well enough with respect to present experience, but not for future experience; whether a picture is appropriate or not, can never be determined, at least unequivocally, but admits of wide differences of opinion. Only by slow, tentative quests is relative certainty to be reached on this head.

Such are the formal points of view from which Hertz proposes to estimate physical theories and their forms of enunciation, and from which he minutely examines the hitherto prevailing systems of mechanics with a view to establishing and justifying his own. Those systems, or pictures, are three.

The first picture is the common presentation of mechanics, as it is found in nearly all text-books. Its fundamental concepts are those of space, time, force, and mass. Powerful as this system is, and successful as its application has been, nevertheless, grave doubts as to its logical consistency, its admissibility, have arisen in the minds of philosophical inquirers. Differences of opinion have existed as to the mathematical certitude of many of its propositions. Such has been its unsatisfactory character, its intellectual uncomfortableness, that even its most useful and fundamental working concept, force, has been brought before the bar and the agnostic verdict rendered that its nature is mysterious.

Here Hertz interpolates a discussion, which is full of light. We often hear the question, What is the nature of electricity? But might we not just as well inquire, What is the nature of gold or of velocity? Is the one better known than the other? Whenever we ask such a question, we seek what cannot be given in words. The trouble here, according to Hertz, is, that at the mention of gold and velocity no relations are assigned that involve subtle and obscure self-contradictions; but in the case of force and electricity more relations have been grouped together than are perfectly compatible with one another. We have a dim presentiment of this, and our search for light is expressed in the obscure, unintelligible question above mentioned. The obscurity is well illustrated by reference to Newton's laws, where force, in the second law, has only one directional aspect, but in the third, two. Now this dissatisfaction, the author claims, is not to be removed by the discovering of new and complex relations, but by the lessening of the relations huddled together in the fundamental concepts. In other words, remove the self-contradictions and the question will answer itself.

What, now, is the upshot of all this? We have cast grave doubts upon the admissibility of the system; why does it always give useful and assured results? It must be, that the obscurities in question affect not the essential aspects of the mechanical picture, that is, do not consist of contradictions between the relations corresponding to the actual relations of the things; but relate to the unessential features, to that which we have mentally and adscititiously annexed to the materials supplied by nature. In a word, the faults are logical faults of form, not of contents. Here is where the new critical work is to be done, and it will consist in clearly stating and distinguishing what in our mechanical picture of the world is matter of intellectual necessity, what matter of experience, and what of arbitrary convention. The obscurity here gathered has pervaded the elements so thoroughly, as to establish the dogma of their eternal validity. Matter of *a priori*, intellectual necessity has been merged with matter of experience, and the conviction of universal certainty in time and space arising from the former has been transferred and predicated of the latter. All we can truly say, however, is that the correctness of the traditional mechanical picture is limited to actual, present experience.

The natural method, by which science has always grown up, is the reverse of the speculative, critical method by which it is sifted and clarified. In the natural process the mental pictures are first found to be appropriate, then are put to the test of their correctness, and only finally freed from logical self-contradictions. This explains why the common system of mechanics exhibits eminent appropriateness, as applied to the simple phenomena which it was originally invented to explain. But to-day we must consider it in connexion with the whole field of physical knowledge, if we are to judge of its appropriateness in its fullest sense, and with that in view must inquire, Is our picture perfectly *distinct*? Does it embrace every feature now discoverable in natural motions, and only such? We must answer, No. The system does not comprehend all the mooted aspects of the so-called

elementary forces. Moreover, it not only includes natural motions, but comprises also such as are not natural. Plainly, a system which would exclude all or a part of the latter would be fitter, possess greater appropriateness, than the old.

Nor is the picture simple. Unessential features are included in it. Such are its forces, which in many cases are wholly unnecessary adjuncts, as in the case of the motion of the stars, where the dynamical relations have never been made the subject of actual experience. The remark applies also to molecular forces, and to chemical and to many electrical and magnetic effects.

The author next considers the form which mechanics has assumed in the last few decades, in which the notion of energy has almost entirely superseded the notion of force. This, the second picture of the mechanical principles, has never been portrayed in all its details; but its possibilities have been recognised, and it is extensively employed by all modern teachers. Its chief claim to excellence is the removal of the difficulties encompassing the notion of force. It employs only the mathematical concepts of space and time, and the physical concepts of mass and energy, the last assumed to be constant in quantity and indestructible. Initially only three elements are considered, space, mass, and energy. The element of time is introduced by means of some integral principle, say Hamilton's. This assumed, we require one empirical fundamental law only, which, though not simple in form, and difficult of immediate apprehension, yet enables us, to predetermine absolutely the actual course of future mechanical events. No additional fundamental factors are employed. All the rest are deductive consequences, simplifications, or mere auxiliary terms, appropriate, but not necessary. To the latter class in this system belongs the notion of a force which is introduced merely as a definition, affecting not the correctness of the system, but only its fitness. Has this system advantages over the first, and what are they?

First, with respect to its fitness it is more distinct. It reproduces more of the peculiarities of natural motions than the first. It comprehends more exhaustively the dynamic relations of rigid connexions which baffled the first system. It is superior also in simplicity, concerning itself less with things of which we know practically nothing. The old system, when confronted with broader physical problems, was constantly obliged to consider atoms and molecules, things very remote from conception and observation. The caprice which reigned in this field was exceedingly painful to thoughtful investigators. If the results were correct, the intermediate steps possessed no demonstrable real significance. The doctrine of energy circumvents these difficulties. It has its starting-point only in experience. Save energy in its few forms, no auxiliary constructions enter. Our predictions are strictly confinable to the known peculiarities of the material systems considered, and it is wholly unnecessary to cover over our knowledge of details with arbitrary and unessential hypotheses. Not only the final results, but all the steps in the deduction of them, may be considered as correct and having meaning. Such are the advantages of the system on this count.

When we come to the correctness and logical admissibility of the second picture matters are a little different. Often mathematically possible applications of the principle lead to physically false results. Still, all doubts that may be advanced on this subject affect only the appropriateness of the system, not its correctness. The real difficulties await us when we consider its logical admissibility. It is incumbent upon us here to assign the simple and immediate experiences by which the presence of a definite store of energy is established. This is assumed in the theory, not proved. Some physicists ascribe to energy the properties and significance of a substance, distributed throughout space. But its conception has, as yet, been put in no satisfactory nor ultimate form. The main difficulty in it is that this substance appears in two totally different shapes as kinetic and as potential energy. Kinetic energy is definable in familiar, intelligible terms. Potential energy needs new determinations, in fact, does not admit of determination, *as a substance*. It may be viewed negatively, which is contrary to all modes of conception of substance. This discussion is significant, and should be read by persons thinking along the lines of the school of Tait. Lastly, it is natural to expect that a fundamental law of mechanics should be simple. This the Hamiltonian principle is not, and no characterisation of this objection as metaphysical is admissible. The requirement of simplicity is not made of nature, but of our mental models of nature. It was these various objections that led Hertz to renounce the second system, which he at one time tried, for that which he afterwards developed and which is ranked and discussed in his introduction as the third. Of this, we are now in a position to see the drift and utility.

Hertz's own system starts from three concepts only, time, space, and mass. No fourth notion, such as force or energy, is admitted, at least as a fundamental conception. With these three notions alone, however, the resultant relations of the fundamental concepts are somewhat complex. Something seems to be wanting, and this is supplied by a hypothesis not here suggested for the first time. What it is, will be evident. When we attempt to understand the motions of bodies and to refer them to simple and lucid rules, taking into account only what we have palpably before our eyes, our attempts fail. The complexity of the events of the world is greater than that complexity which is within the reach of the senses. To come by a complete, detailed, and competent view of the world, we are obliged to imagine behind the things which we see, other *invisible* things, we are compelled to search behind the barriers of the senses for secret, hidden *accomplices*. The unseen factors here signalised were conceived in the first two systems as entities of a special sort, and were reproduced as them in the notions force and energy. But another way is open. We may admit that a hidden something is active here and yet deny that it can be subsumed under any definite category. We are at liberty to assume that the hidden factor is itself nothing but motion and mass, not different from molar motions and masses, but lying without the range of observation. This is the conception, or rather the hypothesis, by which Hertz fills the gap mentioned. In

the pictorial imagination, to the visible masses of the universe are added other masses obeying the same laws, and by the mechanism thus conceived order is introduced into the universe and harmony into the perceiving mind. No other causes are admissible or necessary. Force and energy are now only *effects* of masses and motions of this lesser and more tenuous sort.

Such explanations are termed dynamical explanations. They explain visible effects by invisible effects of the same kind on a reduced, ultra-microscopical scale. Instead of regarding force and energy, those "secret accomplices" of natural events by which the imagination helps us to explain the world, as noumena, things of thought, abstractions merely, made for the purposes of mental reproduction, these invisible imaginary factors are conceived as the effects of the same sort of phenomena as they are invented to explain, only reduced in dimension. At what link in this descending chain of explanation is science to stop? Is it a whit less difficult to explain the motions and masses of very small, invisible particles in their complex effects as impacts, impulses, forces, energy, than it is to explain the same effects in larger, visible bodies? The whole tendency and search, unless it is properly qualified, has the marks of a metaphysical quest, and is unmistakably a departure from Kirchhoff's ideal, which is the direct quantitative expression of the relations of events, *unalloyed by any mental fictions whatsoever*. There is a note of warning on this point in Helmholtz's remark in the Preface. He says, referring to Thomson's and Maxwell's well-known theories of vortex atoms and electro-magnetic media: "Those inquirers were evidently sensible of a higher satisfaction in the theories mentioned than in the simple, very general expression of the facts and the laws given by systems of differential equations in physics. But I must confess that I, for my part, have found the most security in adhering to the last-mentioned mode of presentation, although I should not be disposed to raise objections touching points of principle against physicists so eminent as those mentioned."

Besides, in assuming that the hidden factors are masses in motion, has Hertz himself not "subsumed them under a special category"? The artifice is a natural one, and almost always employed; for we are eye-minded, and the most familiar part of our intellectual mastery of nature is written in the language of vision. But that part is scientifically perhaps not the most important and powerful part. Trigonometry accomplishes more by regarding infinite series as the definitions of sines and cosines than by adhering to the old, but easily visualised geometrical definitions. So it is with the law of evolution and with the principle of the conservation of energy.

Yet the method in question has been employed with the most fruitful consequences by the most eminent modern inquirers. Thermal forces have been explained by the hidden motions of sensible masses; and electro-dynamic forces and forces of elasticity, by similar assumptions. Now, says Hertz, if this hypothesis has gradually put mysterious forces out of mechanics, it has also a function to fulfil in preventing their original entrance into it—a function which accords with the whole methodological drift of modern physics. This is the critical idea from which

he has proceeded in the development of the third picture. And now we may be brief.

First, we have the three independent and fundamental notions of time, space, and mass as simple objects of experience, because we can assign the actual concrete, sensuous facts by which they are determined. In the case of mass, along with sensually perceptible masses, others hidden and sensually inaccessible are introduced. The relations are then combined that control the union of these concrete experiences. Time and space are combined, and the result is kinematics. Mass and time do not enter into combinations. But mass and space are connected by significant and intimate relations. Between the masses of nature we find empirically definite, purely spatial connexions to exist, such that from the beginning until the end of time, and therefore independently of time, certain definite positions and definite changes of position are imposed upon those masses as possible positions, all others being impossible. Further, the connexions thus empirically exhibited relate only to the relative positions of the masses, and they satisfy definite conditions of continuity, which admit of precise mathematical expression. Finally, all three notions are combined, and the result is mechanics in the ordinary, restricted sense, as applied to material systems. Here a single fundamental law holds, the most general expression of their empirical connexion. This law is a joint product of the law of inertia and of Gauss's principle of least constraint. Expressed in ordinary terms, it asserts that, if the connexions of a given, independent material system could be dissolved for a moment, the masses of the system would disperse in rectilinear and uniform motion, but as such dissolution is not possible they persist as near as they possibly can to that conative motion. This is the fundamental and ultimate experiential principle of this system of mechanics. With the help of the hypothesis of hidden masses and law-ruled connexions, all the rest of the contents of mechanics are derived from it by pure deduction. Force enters the system not as something independent and foreign to us, but simply as an ancillary mathematical construction. In its present form, there is nothing mysterious about it. The same remark applies to energy.

The form and terminology of the system are new. What justifications in the way of utility and appropriateness exist for the alteration? They are, first, its simplicity and brevity. In the new form, the mechanics of material systems does not appear as an extension and development of the mechanics of the single point, but the latter appears, as it should appear, simply as a special case. The new method conforms more to actual experience which begins not with the abstraction point, but with tangible, concrete systems. A second but not so essential advantage is that of its mathematical form; it summarises in one theorem both Newton's first law and Gauss's principle of least constraint, eliminating from the first what is superfluous, and from the second what is mystical. Thirdly, it throws much light on Hamilton's method of treating mechanical problems by means of characteristic functions, which has become an important collateral branch of mechanics.

Important, nay, almost sole emphasis, the author lays upon the logical consistency, *the admissibility*, of his system. Whether it is more appropriate, whether it will embrace all future experience, are minor considerations. The prime motive of its being sprang from that other aspect which was so obscured in the common system of presentation. The author is confident that only one objection of a general character imperils it. That objection concerns the nature of the rigid connexions assumed between the masses, and which is indispensable in the system.

With respect to its correctness, it explains correctly very many natural motions and reaches a little beyond the results of assured experience, thus bearing the character of a hypothesis as touching two important points—the limitation of possible connexions and the dynamical explanation of forces.

With respect to appropriateness, its advantages are confined wholly to the formal realm and do not relate to practice. For practical applications the old system will perhaps never be superseded.

As to the mathematical form of the system it, too, departs from tradition. At the outset, it considers systems of points instead of single points. The mathematical treatment resulting from this has a strange physiognomy, but offers in recompense for its novelty the advantages of simplicity, naturalness, and conciseness.

The body of the work is made up of two books. The first is on the *geometry and kinematics* of material systems; the second on the *mechanics* of material systems. In these two books the new system is empirically and mathematically elaborated, and all the traditional matter of mechanics shown to be involved in its logical consequences.

T. J. MCCORMACK.

IMMANENTE PHILOSOPHIE. By *Max Kauffmann*. Leipzig: Wilhelm Engelmann. 1893. Pp. 130.

The author defines the object of his work to be a summary portrayal of reality, a systematic description of the world, having for its chief feature the rigid exclusion of all hypothetic supplements to empirical occurrences. This involves a definition of reality and of empirical occurrences. The investigation of what is reality and what is knowledge was pursued in an earlier treatise of the author entitled *Fundamente der Erkenntnisstheorie und Wissenschaftslehre*. The definition of the concept of cognition there given excluded the possibility of metaphysical knowledge. It was held that under the notion of Knowable only the facts of consciousness fall, and that these were identical with the facts of empirical reality. It was attempted to show that causality, mathematical and logical laws are nothing else than relations of things appurtenant to empirical reality; and by a criticism of ontological proofs it was sought to establish the untenability of ontology, as also to prove that every world outside of the empirical world is, both in constitution and in existence, questionable, and consequently to be repudiated by sound theoretical philosophy. A synopsis of the arguments of the former work is given in the Preface as a foundation for the fabric of the "Immanent Philosophy" reared in the present work. Ac-

ording to its purpose stated above, the Immanent Philosophy has a two-fold task to fulfil: first, it must point out, by an analysis of all the most important abstract concepts, the metaphysical hypotheses concealed in them, so as gradually to reach a material of purely immanent abstract notions unobscured by superfluous metaphysical ingredients; secondly, by the aid of these ideas it must bind together in systematic form all the facts of reality by empirical laws. The "Immanent Philosophy," or the doctrine of the real, is composed thus of an analysis of what is metaphysical, and of a synthesis of what is real; its purpose is simply to point out the relation or connexion between the facts *as found*. "Every correct metaphysical system can be replaced by a different, simpler, and consequently methodically more useful system; but the true immanent system is unique and individual; it can be developed, completed, and brought into organic union with more concrete facts or laws, but cannot be overturned, refuted, or altered: it has, therefore, so far as it is at all arrived at, the peculiarity of being definitive." The present volume is Book I. of the Immanent Philosophy, and it is occupied with the "Analysis of the Metaphysical." It contains five chapters which discuss respectively, Space and Time, the Ego and the External World, Substance and Change, the Development of the Concept of the Individual, and Subject and Object. The critical reader will find much that is suggestive and stimulating in Mr. Kauffmann's little work. Owing to the book having been printed during the author's absence on a trip around the world, a large number of errors has crept into the volume which he is compelled to apologise for and correct by adding an explanation and List of Errata. μκκ.

PERSONALITY, HUMAN AND DIVINE. Being the Bampton Lectures for the Year 1894.

By J. R. Illingworth. M. A. New York and London: Macmillan & Co. 1894. Pp. 274. Price, \$1.75.

Mr. Illingworth's expositions make no claim to originality, being simply an attempt to arrange and summarise what has already been expressed with greater amplitude and fuller authority elsewhere. The sources from which he has drawn are chiefly the early Christian Fathers and the modern theological philosophers. The main contention of the author is, "that, whereas physical science "has nowise "weakened, critical philosophy has distinctly strengthened the claim of human personality, to be a spiritual thing; and, as such, the highest category under which "we can conceive of God." In fact, the ultimate object of the book, in agreement with the conditions of the Bampton Foundation, is "to review our reasons for believing in a personal God." Following from this conception we must suppose a progressive revelation, the evidence for which the author briefly traces, finding its culmination in the Incarnation. As a résumé of arguments in behalf of the old metaphysical conception of personality the book is an excellent one, but it fails to consider, much less to contravene, the researches of modern psychology upon this question. The book would be more valuable if it possessed an index. μ.

PERIODICALS.

THE PSYCHOLOGICAL REVIEW. VOL. II. Nos. 1 and 2.

HERMANN VON HELMHOLTZ AND THE NEW PSYCHOLOGY. By *C. Stumpf*.—THE THEORY OF EMOTION: (II.) THE SIGNIFICANCE OF EMOTIONS. By *John Dewey*.—THE MUSCULAR SENSE AND ITS LOCATION IN THE BRAIN CORTEX, By *M. Allen Starr*.—DISCUSSION: Mind and Body: *Paul Shorey*; Attention as Intensifying Sensation: *H. M. Stanley*; Pleasure-Pain and Emotion: *H. R. Marshall*; A Comment: *E. B. Titchener*.

THE KNOWING OF THINGS TOGETHER. By *William James*.—CONTRIBUTIONS FROM THE PSYCHOLOGICAL LABORATORY OF COLUMBIA COLLEGE (III.): Experiments on Dermal Sensations: *Harold Griffing*; The After-Image Threshold: *S. I. Franz*.—NORMAL DEFECT OF VISION IN THE FOVEA. By *Christine Ladd Franklin*.—PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION, PRINCETON, 1894.—DISCUSSION: The Sensations Are Not the Emotion: *G. M. Stratton*; A Correction: *W. J.*—(New York and London: Macmillan & Co.)

In the January number we have a valuable appreciation of Helmholtz's psychological work by Prof. C. Stumpf, translated from the author's manuscript by J. G. Hibben.

In a preceding article Professor Dewey "endeavored to show that all the so-called expressions of emotion are to be accounted for by reference to movements having some use, either as direct survivals or as disturbances of teleological co-ordinations." In the present paper he proposes to reconsider the James-Lange, or discharge, theory of the nature of emotion from the standpoint there gained. His conclusion is: "Certain movements, formerly useful in themselves, become reduced to tendencies to action, to attitudes. As such they serve, when instinctively aroused into action, as means for realising ends. But so far as there is difficulty in adjusting the organic activity represented by the attitude with that which stands for the idea or end, there is temporary struggle and partial inhibition. This is reported as *Affect*, or emotional seizure. Let the co-ordination be effected in one act, instead of in a successive series of mutually exclusive stimuli, and we have interest. Let such co-ordinations become thoroughly habitual and hereditary, and we have *Gefühlston*."

From an operation made on the brain of a young man suffering from epilepsy, by Dr. McCosh in the Presbyterian Hospital of New York, Professor Starr infers "that the muscular sense centres are distinct in their location from tactile or pain or temperature sense centres; and also from the motor centres; secondly, that they are situated just behind the motor area in the parietal region of the brain."

In the discussions there are a few interesting and lively pages by Prof. Paul Shorey on "Mind and Body." "While we all agree," he says, in deprecating the contamination of psychology with metaphysics, "psychological literature is largely occupied with controversy over metaphysical conceptions introduced by the back door."

Professor James's article, "The Knowing of Things Together," in the March number is the text of his address as President of the American Psychological Association, the last meeting of which was held in Princeton during the last Christmas vacation. The subject of the address is "The Synthetic Unity of Consciousness." He reviews his own and several other attempts to describe accurately and exhaustively this phenomenon, and concludes by abandoning the attempt made in his *Principles of Psychology* to formulate mental states as integers. He admits now, moreover, that metaphysical and epistemological discussions cannot be kept out of psychological treatises.

Abstracts of the papers read before the Psychological Association at the last meeting are published in this number of the *Review*. The *Psychological Index*, comprising the titles of the literature of psychology and cognate subjects in all languages for 1894 (price, 75 cents; to subscribers, 50 cents) is announced by the editors of the *Review*, as is also the founding of a series of *Monograph Supplements* (\$4.00 a volume, for 600 pages). One, on *Sensations from Pressure and Impact*, by Dr. H. Griffing, is now ready.

THE PHILOSOPHICAL REVIEW. Vol. IV. No. 1.

EVOLUTION AND DEVELOPMENT. By Prof. S. W. Dyde.—PLEASURE AND PAIN DEFINED. By Prof. Sidney E. Mezes.—THE METHOD OF IDEALIST ETHICS. By Sydney H. Mellone.—AFFECTIVE MEMORY. By Prof. E. B. Titchener.—BOOK REVIEWS.—(Boston, New York, Chicago: Ginn & Co.)

Professor Dyde distinguishes between evolution and development, evolution being taken to denote a fact of the science of life, and development to indicate the course and character of thought. The article is in the literary style and shows the relations which are influential between the facts of the world and the thoughts that reflect them.

Professor Mezes does not consider all the theories of pleasure and pain, nor has he mentioned the view that pleasure is a feeling accompanying the gratification of a want, and pain the reverse. Following the analogy of the German, he distinguishes two kinds of pain, *Unlust* and *Schmerz*. His conclusions and definitions are: "I. Any psychic fact attended to is pleasant if there is no discernible inhibition in the apperceptive system into which it is received. II. Any psychic fact attended to is unpleasant if there is discernible inhibition in the apperceptive system into which it is received. III. A pain is an unpleasant sensation, either of touch or systemic, of abnormal intensity."

According to Mr. Mellone's view "we are able to regard the process of Evolution as a gradual emergence, a gradual bringing to light, of what the 'matter and energy' of Nature really are; and we explain what Nature (or, what Evolution is) by looking, not to its beginning, but to its End." Physical or non-human Nature becomes the manifestation of a deeper cosmic process, which has a vital relation to human ideal aims of Truth, Goodness, Beauty.

Professor Titchener had maintained "the thesis that the affection, as such, pleasure-pain *qua* elemental process, could never be the object of attention." His present article is a criticism of Ribot's recent assertion that in certain individuals a

truly affective memory is verifiable. He finds that "the affective element, pleasantness-unpleasantness, exists alongside of the sensational and conative factors as a primitive functional constituent of mind; and is not reducible to either of the others. It is impossible to attend to pleasantness-unpleasantness as such. It is therefore impossible to voluntarily recall a past affective state as such. Spontaneous revival of a past affective state as such is also impossible. Even if a pleasantness-unpleasantness were reproduced it could not be recognised."

MIND. NEW SERIES, No. 13.

WHAT DO WE MEAN BY THE INTENSITY OF PSYCHICAL STATES? By *F. H. Bradley*.—ON THE DIFFERENCE OF TIME AND RHYTHM IN MUSIC. By *Dr. R. Wallascheck*.—THE METAPHYSICS OF THE TIME-PROCESS. By *F. C. S. Schiller*.—THE RELATION OF ATTENTION TO MEMORY. By *W. G. Smith*.—SIMPLE REACTIONS. By *E. B. Titchener*.—REALITY AND CAUSATION. By *W. Carlile*.—DISCUSSIONS, ETC.—(London and Edinburgh: Williams & Norgate.)

Although doubtful whether his discussions lead to any definite conclusion, and having a desire only to "reopen the subject," Mr. Bradley believes his inquiries point to five results: "(1) The force of a mental state is a phrase which is most ambiguous. It seldom, if ever, means the same as its actual quantity or area. (2) Psychological strength, taken as an amount of psychical existence or a number of its units, is a conception valid and perhaps useful. Its scale may be relative to my varying condition, but again is average, normal, or absolute. (3) The units of this scale probably cannot be shown, and certainly cannot exist bare; but as an abstraction we seem forced theoretically to assume them. (4) Everything in the soul which in any sense becomes more or less, has *so far* a more or less of psychical existence, but only *so far*. Every 'state' is complex, and the whole state therefore may have a quantity which bears no fixed ratio to any one aspect. (5) Within our psychical content there thus fall scales indefinite in number and more or less independent and able to diverge. Hence a single state may vary quantitatively in various respects, as well as in respect of psychical existence."

The fundamental difference between time and rhythm in music Dr. Wallascheck finds to consist in the fact that rhythm is the form of objective movement, time-sense [that is, the sense of musical time, the French *mesure*, and the German *Takt*] is the form of the perceiving subjective mind. Music, according to Dr. Wallascheck, is essentially a social function; "a musical ensemble, an orchestra, a chorus, is one organism, one person, just as the state represents (juridically) one person, not only a company of several members."

Mr. F. C. S. Schiller is bothered with the question how "that full reality, the individual in the time-process," is to be explained. Scientific knowledge, he thinks, is not an unanalysable term in the explanation of things. Science abstracts from the particularity of reality, in obedience to certain practical aims which it must fulfil. To the discipline in which those aims are formed into a connected and coherent system we must look for an ultimate account of the world. This discipline is abstract metaphysics. It is Mr. Schiller's belief "that a metaphysic of the time-process will stand in the same relation to the explanation of phenomena by their history as a metaphysic of abstract ideas stands to their explanation by universal laws."

Mr. Smith's discussion of "the relation of attention to our power of associating and recollecting objects presented to consciousness" is based upon experiments made in Leipsic in 1893 and continued afterwards in Oxford. His results differ

slightly from the conclusions of previous investigators, and he finds that one great drawback to the researches of Ebbinghaus, Mueller, and Schumann on memory is the formulation of the work of memory in terms of time only, leaving the qualitative analysis of memory to be still sought. His own experiments show what visual, auditory, motor, and other elements enter into play.

THE NEW WORLD. Vol. III, No. 12. Vol. IV, No. 13.

SOME QUESTIONS IN RELIGION NOW PRESSING. By *David N. Beach*.—A UNITARIAN'S GOSPEL. By *Charles E. St. John*.—ATHANASIANISM. By *Levi L. Paine*.—SCIENCE A NATURAL ALLY OF RELIGION. By *E. Benjamin Andrews*.—"ONE LORD, AND HIS NAME ONE. By *Samuel R. Calthrop*.—THE GOSPEL ACCORDING TO PETER. By *J. Armitage Robinson*.—JOHN ADDINGTON SYMONDS. By *Frank Sewall*.—MODERN JESUITISM. By *Charles C. Starbuck*.—THE MIMICRY OF HEREDITY. By *George Batchelor*.

THE DEVIL. By *Charles Carroll Everett*.—RACE-PREJUDICE. By *Maurice Bloomfield*.—OLIVER WENDELL HOLMES. By *T. T. Munger*.—THE GOD OF ZOROASTER. By *L. H. Mills*.—THE TRUTH OF THE CHRISTIAN RELIGION. By *Allan Menzies*.—THE PREACHING OF PHILLIPS BROOKS. By *Henry G. Spaulding*.—SOME OF MR. KIDD'S FALLACIES. By *James M. Whiton*.—THE ORIGINS OF THE RELIGION AND HISTORY OF ISRAEL. By *F. Meinhold*.—THE POET IN AN AGE OF SCIENCE. By *Charles J. Goodwin*.—THE SONG OF THE WELL. By *Karl Rudde*.—BOOK REVIEWS. (Boston: Houghton, Mifflin & Co.)

There are significant signs of stirring in the orthodox theological world, and it will be invigorating for people who have laid the question of the reconciliation of science and religion to heart, to read from the pen of a Congregational clergyman, David Nelson Beach, the article *Some Questions in Religion Now Pressing*, in the December number of *The New World*. Mr. Beach asks: "Has not the time come for a definite reconstruction of theology along the lines in harmony with the largest knowledge and the sturdiest faith of the age? The theology under whose spell the world still rests, that of the age of Anselm and of Aquinas, was conformed to the best contemporaneous science and philosophy. It was of even date. Is ours?"

The article by E. Benjamin Andrews, *Science a Natural Ally to Religion*, tends in the same direction but is written in a slightly different spirit. In any case it is apparent that the opponents of the alliance of science with religion are not all found in the Church proper.

INTERNATIONAL JOURNAL OF ETHICS. Vol. V. No. 2.

THE SIGNIFICANCE OF RECENT LABOR TROUBLES IN AMERICA. By *Hon. Carroll D. Wright*.—THE NECESSITY OF DOGMA. By *J. Ellis McTaggart*.—THE JUVENILE OFFENDER, AND THE CONDITIONS WHICH PRODUCE HIM. By *Rev. W. D. Morrison*.—THE TELEOLOGY OF VIRTUE. By *Walter Smith*.—THE ALTRUISTIC IMPULSE IN MAN AND ANIMALS. By *T. Gavanescul*.—MATTHEW ARNOLD'S POETRY FROM AN ETHICAL STANDPOINT. By *Abraham Flexner*.—DISCUSSIONS.—BOOK REVIEWS. (Philadelphia: International Journal of Ethics, 1305 Arch Street.)

In the late labor troubles, Carroll Wright says. "the losses have been great, the demoralisation certain, the bitterness intensified, and yet out of it all the great moral lesson comes that there must be found a way to deal with such affairs with-

out the presence of the sheriff and all that the sheriff stands for" (pp 144-145). "The most significant results will be the application, through various offices, voluntary and statutory, of the principles of conciliation and arbitration" (p. 146).

J. Ellis McTaggart's fundamental idea on the indispensableness of dogma is unquestionably correct; but we prefer to call "doctrine" what he calls dogma, reserving the name "dogma" for such axiomatic doctrines as lay claim to be above investigation and criticism. (As to the distinction we make between dogma and doctrine, see *The Religion of Science*, p. 10.)

REVUE PHILOSOPHIQUE. Vol. XX. No. 1 and 2.

LA VISION MENTALE. (First Article.) By *J. Soury*.—PSYCHOLOGIE DU MUSICIEN. (III.) De l'intelligence musicale et de ses conditions subjectives. By *L. Dawriac*.—MORALE ET DÉTERMINISME. By *Schins*.

L'ENSEIGNEMENT PHILOSOPHIQUE ET L'AGRÉGATION DE PHILOSOPHIE. By *E. Durkheim*.—CRIMINALITÉ ET SANTÉ SOCIALE. By *G. Tarde*.—LA VISION MENTALE. (Concluded.) By *J. Soury*.—ANALYSES ET COMPTES RENDUS, ETC. —(Paris: Felix Alcan.)

In the articles on "Mental Vision" M. Soury recapitulates the results of the most recent research in the anatomy, physiology, histology, and neurology of the organs of visions and visual perception as they bear on psychology. The reader will find succinctly summarised here the facts which have recently revolutionised this department of inquiry. The article in the February number by M. Durkheim on "Philosophical Instruction in France" is both interesting and opportune.

REVUE DE MÉTAPHYSIQUE ET DE MORALE. Vol. III. No. 1.

DE L'ORIENTATION DE LA MÉTHODE EN ÉVOLUTIONNISME. By *A. Sabatier*.—REMARQUES SUR LE PROBLÈME DE L'INSTINCT. By *Louis Weber*.—TROISIÈME DIALOGUE PHILOSOPHIQUE ENTRE EUDOXE ET ARISTE. By *Criton*.—DISCUSSIONS.—(Paris: Librairie Hachette et Cie.)

With the January number the *Revue* begins its third year, and we have in this number a brief editorial retrospect or confession of what the *Revue* has achieved in the brief period of its existence. Although much space has been accorded to the logic of the sciences, and to metaphysical philosophy, and the discussions of these branches have been very fruitful, scarcely anything has been done in the department of morals, if we except one remarkable study on Utilitarianism; in fact, very few articles on the subject have been handed in to the editor. The circumstance is significant, and the editor seizes the occasion to make some remarks on the practical bearings of philosophy and to emphasise the pressing necessity of its application to the solution of the problem of real life. His criticisms touch primarily the conditions in France, and it is promised that the future numbers of the *Revue* will devote more attention to this subject. Accordingly, under the title of "Reflexions of a Philosopher on the Questions of the Day," A. Darlu begins the work with a discussion of the *Impôt progressif sur les successions*. If one looks over the contents of the *Revue* for the past two years it will certainly be granted that the first part of its task, that relating to the logic of the sciences, has been very successfully fulfilled. In the present number M. Sabatier contends that the scientific method always remains the same as a method, as an intellectual process, but that the angle under which facts are viewed, the importance and the character attached to them are con-

stantly changing. This is what he means by the "orientation of method." His views have a conservative tinge.

M. Weber discusses Instinct in Some of its Metaphysical Aspects, and finds it, naturally enough, in all the manifestations of the mental life. The advantages of dialogue for philosophical exposition,—an instrument now fallen almost entirely into disuse,—are well shown in "Crito's" colloquies.

Dr. G. Frege continues the discussion of the Philosophical Foundations of Mathematics, and we have besides a detailed criticism of some new works on Spinoza by Ch. Andler.

L'ANNEE PSYCHOLOGIQUE.

This is the title of a new psychological year-book to be edited by Prof. H. Beaunis of Nancy, and Dr. A. Binet, director of the psychological laboratory at the Sorbonne, Paris, and having as collaborators Messrs. Ribot, Flourney, Delabarre, Weeks, Victor Henri, Philippe, Courtier, and Bourdon. The *Annual*, which is announced for March and has by this time appeared, is to consist of four parts. The first contains detailed analyses of the various important psychological works which have appeared in 1894 with diagrams, figures, and tables, and so made as to dispense with references to the sources. The main questions treated under this head in the first number are: The nervous system (as recently investigated by Cajal, de Viallet, de Mosso, and others), sensations of sight, hearing, touch, smell, and taste, muscular sensations, sensations of vertigo, etc., memory, association of ideas, and paramnesia (the experiments of Münsterberg, Bryan, Kirkpatrick, and others), attention, the sense of time and rhythm (experiments of Bolton and Neumann), psychometry and psychophysics, ratiocination, will, personality, illusions, hallucinations, dreams, colored audition, pleasure, pain, the sentiments, emotions, æsthetics, the psychology of children and pedagogics, and, finally, discussions of new treatises of psychology and philosophical questions. The second part is a bibliographical index, containing over twelve hundred items, of all the works that have appeared in 1894 touching the histology, anatomy, and physiology of the nervous system, mental and nervous pathology, psychology, philosophy, ethics, pedagogy, criminology, and the psychology of children. The third part will be a publication in full of articles constituting the results of the special labors of the psychological laboratory of the Sorbonne. The fourth part relates to psychological observations and experiments and to new psychological instruments. Appended is a necrology. Subscriptions sent direct to M. Binet at the Sorbonne, Paris, are only seven francs; bought from the trade the volume will cost ten francs each.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE. Vol. I. No. 1.

UEBER METAPHYSIK ALS ERFAHRUNGSWISSENSCHAFT. By E. Zeller.—ZUR THEORIE DER BEOBAHTUNG (I). By B. Erdmann.—UEBER EINE BEZIEHUNG DER SELECTIONSLEHRE ZUR ERKENNTNISSTHEORIE. By G. Simmel.—UEBER PSYCHOPHYSISCHE ENERGIE UND IHRE FACTOREN. By K. Lasswitz.—GRUNDLINIEN EINER THEORIE DER WILLENSBILDUNG (I). By P. Natorp.—(Berlin: George Reimer.)

The *Archiv* is the continuation under a new name and with more specialised objects, of the old *Philosophische Monatshefte*. It is still edited by Dr. Paul Natorp, with whom are now associated Wilhelm Dilthey, Benno Erdmann, Christoph Sigwart, Ludwig Stein, and Eduard Zeller. Although appearing only quarterly, in

scope it is far more pretentious than the old magazine. In this first number the list of contributors shows many eminent names. E. Zeller treats on Metaphysics as an Empirical Science. B. Erdmann supplies the first installment of a series of articles on the Theory of Observation. G. Simmel writes on A Relation of the Doctrine of Selection to the Theory of Knowledge. K. Lasswitz writes on Psycho-Physical Energy and its Factors, and P. Natorp gives the fundamental outlines of a Theory for the Formation of Will. A new and important feature of the *Archiv* are the annual reports of the literature of systematic philosophy in all civilised countries, three of which, namely, the reports of Germany, Great Britain, and France, written by R. Eucken, Bernard Bosanquet, and Victor Brochard respectively, appear in this number. The reports are written in the native languages of the authors.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNES-
ORGANE. Vol. VIII. Nos. 1, 2, 3, 4, and 5.

UEBER DIE NATUR GEWISSE MIT DEN PSYCHISCHEN VORGÄNGEN VERKNÜPFTER
GEHIRNZUSTÄNDE. By *J. v. Kries*.—UEBER DIE LATENTE HYPERMETROPIE.
By *Cl. Du Bois-Reymond*.—PSYCHISCHE ARBEIT. By *A. Höfler*.

PSYCHISCHE ARBEIT. (Concluded.) By *A. Höfler*.—EXPERIMENTELLE UNTER-
SUCHUNGEN ÜBER DAS GEDÄCHTNIS. By *Waldemar Lewy*.

ZUR LEHRE VON DEN GEFÜHLEN, INSBESONDERE DEN ÄSTHETISCHEN ELEMENTAR-
GEFÜHLEN. (I.) By *Theodor Lipps*.—DAS LASÈGUESCHE SYMPTOMENKOM-
PLEX. By *S. Landmann*.—UEBER DIE ANZAHL DER UNTERSCHIEDBAREN
SPEKTRALFARBEN UND HELLIGKEITSSTUFEN. By *Arthur König*.—LITTERA-
TURBERICHT. (Hamburg and Leipsic: Leopold Voss.)

Dr. A. Höfler's articles on "Psychical Work" are full of suggestive thoughts. He seeks to follow out the analogies between the various physical conceptions and the similar terms used metaphorically to express psychological states. The laying bare of the essence of these analogies is very important and nearly every psychological discussion tacitly hinges upon them. They are here considered in all their salient aspects.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE.
Vol. XVIII. No. 4. Vol. XIX. No 1.

ZUR BUDDHISTISCHEN PSYCHOLOGIE. By *Ths. Achelis*.—BEMERKUNGEN ZUM
BEGRIFF DES GEGENSTANDES DER PSYCHOLOGIE (II). By *R. Avenarius*.—
UEBER SUBJECTLOSE SÄTZE UND DAS VERHÄLTNISS DER GRAMMATIK ZU LOGIK
UND PSYCHOLOGIE (V). By *A. Marty*.

BEMERKUNGEN ZUM BEGRIFF DES GEGENSTANDES DER PSYCHOLOGIE (III). By
R. Avenarius.—UEBER SUBJECTLOSE SÄTZE UND DAS VERHÄLTNISS DER GRAM-
MATIK ZU LOGIK UND PSYCHOLOGIE. By *A. Marty*.—VON DER ERKENNTNISS
DES GUTEN UND BÖSEN. By *A. Spir*.—(Leipsic: O. R. Reisland.)

Mr. Achelis's article is a brief and concise *résumé* of the main features of the Buddhist psychology, with especial reference to its modern parallelisms in the doctrine of Hume, Mill, Hegel, and others. For example, we learn that the controversy concerning the *I* and the *Not-I* of Fichte is over two thousand years old. The Buddhists place the solution of the world-riddle in the problem of causality, and we have in Nirvana, the author says, a conception concerning whose philosophical import there cannot be the least doubt.

THE SOUL.

ALLEGORY.

THE primal property of sentient life
That comes with protoplasmic body formed
Is strange endowment of awareness deft,
Of action and reaction when the self
Collides in force with world environment—
A gift that in becoming ages grows
To reason's stature, where all wisdom glows.

Heredity, the gift of life in plant,
By which the past descends to present time,
Is wed in love with young Awareness fair,
And from the source of life an issue springs
Of troops of memories, on angel wings.

Anon the sequent generations come
And like with like in matrimony join,
Whose offspring fill the world with fays of Sense;
Who fare the earth on wings of rainbow light,
Or ride the air on strains of music sweet,
Or sail on perfume o'er the sea of cloud,

Or journey far on cars of flavor wrought,
Or on the feet of touch through gardens roam
Where violets and roses keep their home.

Sensations come in generations vast ;
And friendships dear among the varied forms
E'er grow by sweet propinquity to love ;
And from the depths of love fair percepts spring—
A host of fairies of a higher life
Who ride on thoughts through world of peace and strife.

Anon perceptions multiply with time,
Of world's activity and deeds of self,
Till lovely deed and mighty act are joined
In holy wedlock's sacred bonds of thought.
Then percepts sire an Understanding host
Of giants armed with force and energy,
In panoply of universal laws,
And coursing steeds of universal cause.

The giants wed and genii appear—
Reflexions wise that ken the past and now—
And prophesy the history of world,
Emblazoned on the tome of present time :
A light to read the ages coming on,
The tale of time in glyphs of æons gone.

So fays and fairies, giants, genii,
Fill all the world enwalled by orbs of light

With many magic denizens of mind—
A world that fills all space and yet leaves room
For myriad worlds of symbol-teeming mind
That miracle the souls of all mankind.

SONG.

O, whence come the forces of mind,
The agencies potent of good?
O, whence come the thoughts of mankind,
With errors so vainly withstood?

Each soul is in focus of world
Where forces are constantly hurled,
And cosmos external and real
Creates in the soul an ideal.

For there transformation is wrought,
Where forces are changed into thought,
Responding to cosmical thrill
Or turned into deed of the will.

SOUL FORCES.

The vast phenomena above the world—
In heaven high, with all its stars unfurled,
Whose very rest is motion on through space,
Unceasing change their sole enduring base,
While thrilling the heart with emotion enwrought
And filling the mind with a river of thought—
Fore'er to man all make appeal,
And beckon on to woe or weal.

The vast phenomena spread o'er the land,
Abroad on blooming plain and mountain grand,
Where lofty cliff defends the nestling lea
And cloud as river runs to join the sea,
Where poet is charmed with the story concealed
And sage is allured by the vision revealed,—
Have all a tale to stir the soul
And lure the man to higher goal.

And all phenomena of ocean vast,—
In unknown depth, too great for plummet cast,
Or shallow sea, where verdant islands smile,
Or inlet, where the swelling hills beguile,
Where sailor is borne o'er the wind-driven waves,
Where tempest disports, or the hurricane raves,—
All tell a wondrous tale to man,
His listening soul to bless or ban.

Phenomena of subterranean deeps,—
Where fierce volcanic fire in silence sleeps,
Or roars in earthquake, bursts in lava stream,
And fills the trembling land with fright supreme,
Where treasure of silver and gold may be found
And interlocked crystalline jewels abound,—
Appeal to every realm of soul
The mind and will of psychic whole.

With swarming life the atmosphere is filled,
And microscopic forms have task to build

A world of life beneath the azure dome—
The star-decked tent for every wanderer's home ;
And waters are filled with minute living forms
That ride on the billows and dance with the storms :
To hosts that live the sight beyond—
To all these lives—must man respond.

And all the plants spread o'er the bounteous earth,
Where sequent fruit rewards the blossom's birth,
And forest clothes the mountain with delight,
And prairie blooms in beatific sight,—
Where mosses are found in the shady retreat
And lichens are spread in the rime and the heat,—
Commune with man, who roams for years
O'er hill of smiles and vale of tears.

The stellate beings that inhabit sea
And hosts whose stranded homes bedeck the key,
The tribes in blooming copse and meadow seen,
Who sport cuirass of gold and helmet green,—
The fishes that swim and the reptiles that crawl,
The beast and the carolling bird over all,—
In being live to signal man
And play their part in psychic plan.

And loving, hating, acting, thinking men
Pour out their living words with tongue and pen,
Till thought enthrills the world from zone to zone
And sways the crowd, or stirs the sage alone.

Each soul of the world is a star source of thought—
And still but a learner, by other souls taught :—
Environed by all human kind—
Environment of every mind.

For man has invented a magical art,
In league with the pulsating air,
With symboling speech to unbosom the heart,
Revealing the thought nestled there.

And symbols of symbols in defter design
He graves on the tomes of the world,
Till faraway *theres* are brought *here* to recline,
All *thens* to the *now* are unfurled.

SONG.

O, what are the powers of soul
To cope with the forces of earth !
The levin and tempest control—
The ocean that dances in mirth !

Yet soul is the master of all ;
Ideal is ruler supreme,
And forces obey its still call,
Though uttered in only a dream.

Sublime are the gifts of the soul—
Endowments of opulent life
Displayed on eternity's roll
In symbols of aid or of strife.

AWARENESS.

The soul is harp on which the cosmos plays—
With conscious chords for multitudinous lays—
A song of raptured love in tender notes,
A hymn that o'er the balmy evening floats,
A charge that the deed may be daringly done,
A pæan for victory brilliantly won,
Or dirge on direful day of doom,
When love is buried deep in tomb.

MEMORY.

The soul is treasure-house of cosmos grand,
For jewels brought from sky and sea and land;
Displayed in beauty all the worlds appear
As universal lore that dights the seer;
For stars in their splendor are limned in thought,
And seas in their turbulence quietly caught,
And vale and hill and mountain high
Are there illumed for mental eye.

SENSATION

The soul is Pilot grey on sea of lore,
Where barques of Touch are sent from every shore,
And brigs of savor bearing fruits of earth,
And boats of odor born of Blossom birth,
And carvels of music from choirs in air,

And clippers of light from the stellar glare,
And sloops that come from ports of life
With joys and pains of inner strife.

PERCEPTION.

The soul is skilled Interpreter of world,
To render into thought the signs unfurled
Throughout illumined sky and murky deep
And subterranean realms where earthquakes sleep—
The meteor flash and the nebular gleam,
The cloud on the mount and the turbulent stream,
The cavern with its pillars grand
Orb-peopled sky and sea and land.

UNDERSTANDING.

The Soul is wise discoverer of cause,
Who sees revealed in form the guiding laws,
And journeys far to realms beyond the here,
And kens the sounds that never come to ear,—
Ariding the waves of activity's sea,
Exploring the lands where the forces are free,
Where fount of youth forever flows
And tree of truth forever grows.

REFLEXION.

The soul is deft artificer of thought,
Who carves the blocks from cosmic quarries brought
In symbol glyphs of universal form,

In correspondence true to cosmic norm ;
And the history read in the glow and the gloom
Is story of living from cradle to tomb,
With joys and pains and hopes and fears
And deeds that fill the rolling years.

ACCEPTION.

The soul is temple built of spoken blocks ;
Its deep foundation laid in living rocks ;
Its walls combine experiential lore,
As thought and thought are hewn forevermore.
The dome is of reason of heavenly hue,
On arches that symbol the good and the true.
Pavilions stand to guard them all,
And wisdom glints the turrets tall.

INTROSPECTION.

The soul is a harp, I remember,
Whose vibrating chords are of consciousness spun,
And Cosmos forever is harper,
Who strolls down the ages emeasured by sun,
With song of the mighty becoming—
A pæan to star-worlds for victory won.

The soul of the soul is a gittern
That echoes the harp in its cosmic refrain,
Its strings of self-consciousness woven,
Responsive in tremulous whispering strain,

Like voice of a delicate conscience,
Adjudging the issues of pleasure and pain.

As ambient air bears the music
From pulsating viol to listening ear,
So memory carries the pæan
To tremulous gittern in hope or in fear ;
For soul of the soul is the gittern,
Still murmuring melody joyful or drear.

CONCEPTION.

The soul is Universe of thought and will,
In concepts grouped of judgments wrought in skill,
The like with like in wise discrimination,
The formal joined in deftest integration,
The acting united in skilful causation,
The sequent combined in a wise derivation,
And all in one idea cast :
The universal concept vast.

The mind and will as dual parts in whole
Unite to constitute the human soul,
External true and good to comprehend,
The false and foul that ever o'er it pend :
The true and the right in the conscience supernal,
The false and the wrong in the doing infernal ;
To know environment is mind ;
To know to do is will in kind.

With certitude or hesitating doubt
Each soul responds to every change without,
In bitter turbulence or sweet repose ;
From duplex soul a double answer goes :
For life of the soul is reply to the sign ;
To whispering impulses action benign ;
To asking mind an answer meet ;
To loving heart response complete.

A mind diseased may haste the truth to spurn,
And then for love may bitter hate return ;
A halting will in mighty deed may fail
(Alas, such psychic maladies prevail!) ;
While death of the soul is the failure to send
Response to the signal of foe or of friend ;
For soul unthrilled by cosmic choirs,
As eye unpulsed by light, expires.

As passive bell receives the blow betimes
And active rings the mellow wedding chimes,
As passive germ receives the golden light
And active spreads a lily to the sight,
The soul that responds to the symbols of truth
And ponders in age as it pulses in youth
Is passive while the world entrills
And active as it thinks and wills.

THE MIND.

The mind is Architect with cosmic force
To gather all from its primeval source ;

The creature then creator comes to be,
And builds of psychic forms immensity—
A cosmical world of concepts enwrought,
The symbol parts fitted of integrant thought ;
A psychocosm by mind begot,
Where matter, space, and time are not.

The heart of mind is judgment-seat to feel
The bitter pain of woe, the joy of weal,—
Ancestral heritage to guard the way
Through peril born of night or glare of day.
Emotion is judgment experience brings,
The wisdom of time on cognitional wings—
An angel's warning given to man
That all the world will boon or ban.

THE WILL.

The will is Engineer, with might sublime
To yoke the energies of space and time
As slaves to toil for every human need,
And servants trained to render each his meed ;
No power so subtle but learns to obey,
No forces so mighty but yield to the sway ;
Alcyone bestows her light
And Amazon his rolling might.

The will is skilful choice of deed to do
When world collides with self in action true,
Responding with the apt and juster deed,

A full supply for every human need ;
And wisely and truly to play the good rôle,
Through highways and byways a guide to the soul,
When wisdom dwells in human ken
And justice lives with wiser men.

The heart of will is fruit from tree of life,
That kens the good of love and ill of strife,—
The deftest function of the human soul
A pledge to honest self-control ;
For feeling is knowing the good and the ill,
The conscience responding to cosmical thrill
That ever plays through human heart
In life informed by psychic art.

The fickle wind from north or south may blow ;
From east or west ; its ban or boon bestow ;
And beat the boat past every sheltering loch
Adrift till wave shall dash it on the rock,
Where breaker is lashing the headland with foam
And gull soars adown from its beetle-browed home—
But nay, the sail transmutes them all,
To waft the barque where loved ones call.

So will transmutes the universal force
To breeze that speeds the barque on chosen course ;
For soul is barque on life's tempestuous sea,
Asail from strand of birth to death's dark key,
Where breezes are wafting to sheltering loch,

Or hurricanes driving to breaker-lashed rock ;
But will as sail controls them all,
To waft the soul where loved ones call.

BECOMING OF SOUL.

The mind becomes by increments minute
Of judgments built, as block on block is laid
From quarries brought unnumbered as the sands,
And all arranged with skill in memory's store—
An opulence of universal lore.

They come! they come! these deeply-freighted ships—
On rolling sea of lore, from all the world,
With symbol blocks in symbol ships asail
Forever coming in the calm and storm ;
While pilot grey, Sensation, guides them all
To mystic wharf of cosmic treasure-house,
Where all the symbol cargoes, deftly stored,
Are grouped, the like with like, in wisdom's hoard.

Perception, skilled Interpreter of world,
Receiving cargoes from afar,
Endowed with deft experiential skill,
Selects the fitting block for every part
And, all in hands of wise Interpreter,
The magic symbols are conceptual wrought,
In structure deft of wisely fitting form,
Conforming just to universal norm.

Then Understanding hoary, Seer of force,
Inspires the symbol-forms with wealth of life
And makes them living blocks of energy,
In concepts wise of universal force,
The elements of soul in psychic mode
Obedient to laws of cosmic code.

Reflection, deft Artificer of thought,
Combines the living blocks in sequent groups
Along the lines that lead from sure effect
To antecedent cause in depths of time,
In concepts true of world—becoming change,
Where germs of Now are stored in cosmic grange.

At last the Architect, the mighty Mind,
Unites them all in universal whole:
The concepts wrought by Sense in sorted class,
The systematic grouping of all thought;
The concepts wrought by deft Perception's skill
Conforming just to all the forms of world;
The concepts wrought by Understanding wise,
Of force and energy and cause of deed;
The concepts wrought by calm Reflexion's might,
Of serried ages of becoming thought;
In world-view vast embracing all in one
Of stars and æons measured by the sun.

The Will as engineer, with might sublime—
The twin of mind combined by miracle—

Is fain to join in great Creator's work
And lend his aid to task of building world.
And, trained by Mind in laws of primal time,
That guide the course of evolution vast,
Volition makes a better world for man,
Conforming still to universal plan.

Not into gloom of introverted self,
But out to cosmic realm, he gazes far,
Illumined ever by eternal light,
Inspired by hope to win a better day,
Informed by love to find a better way.

Thus Will transforms the world to meet his need
And then reforms the self to higher law,
Forgetting death in faith of life eterne,
Forgetting pleasure sweet in quest of love,
And filled with joy at beatific truth,
Whose coronet is everlasting youth.

J. W. POWELL.